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WEEKLY

NEW YORK—SATURDAY, AUGUST 22, 1903—CHICAGO

10 CENTS

Sight-Seeing from Automobile Breaks.

Up-to-Date Methods of Showing Places of Interest to Visitors in New York City and Denver that have Proved very Popular this Summer.

"In the good old summer time," when the annual emigration to the summer resorts of the mountains and the sea-shore to escape the heat of the metrop-

olis is begun by thousands and tens of thousands of those who live and toil through the other seasons of the year in New York, there are other thousands

resident in cities and country districts throughout all the rest of the land who take advantage of the summer vacation season to visit the metropolis. Among



"SEEING NEW YORK" ELECTRIC BREAK TOURING THE HISTORICAL SECTION OF MANHATTAN WITH A LOAD OF SIGHTSEERS.

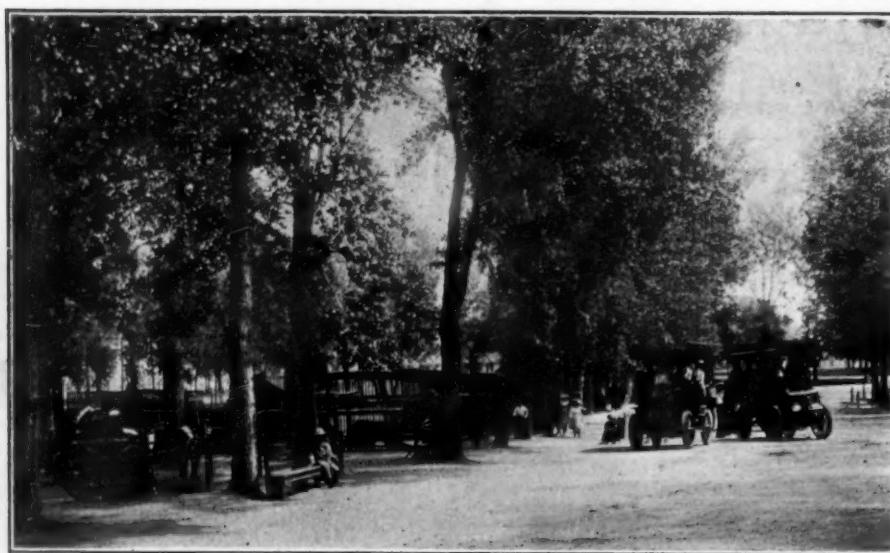
these are school teachers, ministers, professional men, well-to-do farmers, bridal couples, village merchants and their families—in fact, men and women drawn from many walks of life and from all parts of the world, all intent on seeing as many of the places of interest in the first city of the western world as possible in the usually short time at their disposal.

No dread of midsummer torridity deters these thousands from their long-anticipated pilgrimages to the sightseers' Mecca. They are bent on seeing things; and there are not lacking those who are glad to help them accomplish their object—for a con-

the multiplicity of facts reeled off by rote to him through a megaphone by an expressionless "guide" soon becomes so confusing as to leave scarcely more than a general impression on his memory. To the credit of the sightseer and tourist the world over, it must be said that even in his most fleeting visit to a city he invariably sees more and visits more places of interest than the average resident of the town does in the course of an entire year, or sometimes in many years.

PLAN ORIGINATED IN DENVER.

The idea of taking tourists to the chief points of interest in the city in squads,



A VISIT BY AUTO TO THE ZOO IN CITY PARK, DENVER.

sideration. Indeed, many have found a source of considerable profit in assisting the visitors to see New York in the summer time, just as many others in Washington have made goodly livings by assisting the all-the-year-round sightseers to see the points of interest in the National Capital.

THE MODERN WAY.

In earlier days this increasingly lucrative occupation was followed mainly by individuals who acted as guides and by cab and bus men; but as the number of such sightseers grew annually and the spirit of consolidation and the bold undertaking of large commercial enterprises spread, companies were organized and incorporated to conduct this business in a systematic way, with comfort to the patrons and a despatch that means profit to the company.

The arrangement is doubtless to the mutual advantage of the visitors and of those who conduct the enterprise, for it grows in popularity with the passing years. It possesses the advantage of helping the visitor to see in the limited time at his command, the largest number of objects and places of interest—and it is not, perhaps, to the discredit of either that the knowledge so gained is but superficial, giving the sightseer no insight into the real life and customs of the city, and that

accompanied by a guide with a phenomenal memory to which have been committed facts innumerable regarding the many places, is claimed to have originated in Denver several years ago. Whether it did or did not is of no especial consequence, as probably nobody not directly concerned cares. It is of interest, however, to know that in those earlier days electric street cars were chartered by the company formed for the purpose. These were reserved for the especial use of patrons of the company and made regular trips over certain routes on a published schedule. The plan was popular from the first and was copied in Washington and other cities east and west where sightseers are numerous. A New York company conducted a similar business with two large horse-drawn coaches and, favored by the peculiar location of the metropolis on Manhattan Island, extended the scheme to include the objects of interest along the Hudson and East Rivers by placing in service a small pleasure boat for the tourists.

INTRODUCTION OF MOTOR BREAKS.

With the remarkable growth in popularity of the automobile, a new scheme for popularizing the service with visitors seemed to occur simultaneously to the New York and Denver companies. They would take sightseers to the places of

interest in automobiles! So, early this summer the "Seeing New York" coach—a huge modern juggernaut in the form of an electric vehicle lacking only in the sacrificial element—was placed in service on the well-paved streets of Manhattan, while in the Colorado capital the "Viewing Denver" gasoline break made its appearance.

The "Seeing New York" electric has the distinction of being without question the largest automobile, if not, indeed, the largest road vehicle of any kind, ever built for carrying passengers. It is only barely surpassed in carrying capacity by the long modern electric street car. With eight seats, each seating comfortably five or six passengers, it carries a load of from forty to fifty sightseers on almost every trip it makes.

ROUTE COVERED IN NEW YORK.

Three trips are made daily, except Sunday, starting from a central point in the city at 9:30 A. M. and 2 and 4:30 P. M. Each round trip consumes about one and a half hours. The out-of-towner is taken through the "historic section" at the lower end of the island, the monster coach moving majestically down Broadway at a pace of eight miles an hour past Old Trinity and St. Paul's churches to Battery Park and Castle Garden. Returning, it goes through Wall and Broad Streets, stopping for ten minutes for an inspection of the handsome new Stock Exchange Building, past the Sub-Treasury and through the center of the widely-famed district of skyscraping office buildings. Thence the visitor is carried past the Brooklyn Bridge, the Bowery and through the narrow streets of Chinatown.

In the short space of an hour and a half on this trip the sightseer has pointed out to him no less than 150 places of more or less interest—an average of one and two-thirds for every minute of the time. It is not difficult to imagine that after this the visitors' mind, eyes and neck need a good period of recuperation.

A CONSPICUOUS POSITION.

Undoubtedly, the patrons of the automobile enjoy a commanding position from which they can gaze upon the sights, as the seats are eight feet above the level of the street. To the person who has lived for years in the metropolis or in any large city, and who, as a rule, is disposed to avoid making himself conspicuous, the thought occurs, "How does it feel to be perched away up there, labeled plainly 'a stranger from the country seeing the sights of the city,' and made the cynosure of all the populace by the blaring bugle of a novice in need of much training, dressed in a flaming scarlet coat, and by the sonorous voice of the guide as he tells through the megaphone what each place is."

It is not an uncommon trait of human nature to wish to conceal the fact that one is a stranger in a town. This is especially true of men, and it is interesting to note the great predominance of women in the

big break on each trip. Nevertheless, the "Seeing New York" automobile is popular, as proved by the fact that it is filled to the limit on every trip on pleasant days, and that frequently seats in it are engaged several days ahead. In very hot weather—of which there has been remarkably little this summer—and on showery days, the passengers are protected by a large canopy top covering the whole vehicle but open on all sides.

DETAILS OF THE VEHICLE.

Some of the details regarding the great machine will be of interest. The length over all is 22 feet; the width from hub to hub 7 feet, and the height of the seats from the ground 8 feet. The canopy is adjustable and is carried in compartments in the body of the vehicle. The body is mounted on the Vehicle Equipment Company's "pedestal" steel frame running gear, with the battery cradle underneath. Motive power is furnished by 44 cells of Exide battery of the type known as "M V," each cell having 17 plates. There are two independent General Electric motors (No. 1004) suspended on the rear axle and driving through double reduction gears. Each motor is of approximately 5-horsepower. The tires are of solid rubber, 6 inches wide and flat on the tread. The

street cars and this summer he put several powerful gasoline vehicles of the Chicago Motor Vehicle Company, each capable of carrying from twelve to fifteen passengers, in commission. Each of these was in charge of an experienced operator and they soon became so popular with visitors that they have been filled to their capacity ever since the opening of the season.

Denver offers peculiar inducements for the operation of such an automobile system, because a rush of western tourists each season centres in Colorado's capital city. The attractions for the tourist in Denver are many, and are covered by the automobile excursions, which include trips to City Park, Capitol Hill, and the downtown business districts. Last year 60,000 tourists visited Denver, according to the figures given out by the railway managers. This season's business, it is expected, will be even larger.

It is planned to extend the automobile transportation facilities in various parts of the State. The Burlington Railroad is already operating a line of auto stages from Lyons, Col., to Estes Park, a favorite summer resort near Long's Peak. Another stage line is operated to Troutdale from Evergreen, Col. These stages carry heavy loads up steep mountain grades, and

automobiles in Denver, seem to indicate that the time is not far distant when even the Western horse will be driven from a field in which he has held his own for many years.

BRITISH MOTOR CAR BILL PASSES HOUSE OF COMMONS.

According to cable dispatches in the daily press, the British Motor Car Bill, referred to in these pages last week, has passed both houses in substantially the form given it in the House of Commons, and will go into effect January 1. The principal modification given it from its original form is the addition of a speed limit of twenty miles an hour in country districts, and ten miles an hour in towns. The maximum penalties for violation are: for first offense, \$50; second offense, \$100; subsequent offenses, \$250. To secure conviction the testimony of at least two witnesses is required.

Reckless driving, regardless of the particular speed, is likewise punishable by a fine not exceeding \$100 for the first offense, and by a fine not exceeding \$250, or imprisonment for not more than three months, for subsequent offenses.

The registration and numbering clauses



"VIEWING DENVER" GASOLINE BREAKS AT THE ENTRANCE OF THE COLORADO STATE CAPITOL BUILDING.

controller gives four speeds ahead and two reverse. The maximum speed is from 7 to 8 miles an hour. The radius on one charge of the battery is 30 miles. The vehicle complete weighs 7,900 pounds, and the purchase price was \$5,000.

THE "VIEWING DENVER" COACHES.

Manager Lewis Lindahl, of the Colorado Automobile Company, was quick to see the advantage of the automobile over the

are so reliable that they are growing in favor. The danger of breaking harness, which constantly threatens a stage team, is obviated, and the automobile is always under so much better control than a team of western horses that there is far less risk of running off a steep embankment into a canyon.

The experiences with these stages in Colorado, and particularly with the tourist

stand, and every operator must have a license. No one under seventeen will be licensed. A driver must stop in case of accident due to the presence of an automobile on the road, and must be prepared to give the names and addresses of himself and the owner of the car.

The act is to continue in force three years, but presumably may be earlier repealed.

August 22, 1903.

Kentuckians Awakened to a New Sport.

They See Automobile Racing for the First Time and in Their Enthusiasm Forget Their Beloved Bluegrass Thoroughbreds.

Special Correspondence.

Louisville, Ky., Aug. 16.—A Kentucky automobile race meet; the first automobile race meet ever held at Louisville—thrown carelessly in between the reign of the bluegrass Derby and the dynasty of universal motors. An affair strange in setting, stranger still in procedure, and strangest of all in having struck an intensely responsive chord in the sport-loving nature which for generations has found its chief delight in the prowess of its horses.

Take the scenes of all the Southern stories you have read, about the gallantry of men, the grace of women, the speed of three-year-olds, and roll them into one, so that Churchill Downs, with its own unrivaled brilliance in the world of horse racing, may assume a more decisive perspective and become the true representative of Kentucky sport at its height, and you have the picture into the foreground of which the progressive destiny of the world yesterday set down the strangest, the funniest and withal the most picturesque, if not quite grotesque, automobile race meeting ever held in this country. Then imagine all the intensity of feeling which has been credited to Southern gentlemen and Southern belles as being thrown around the new sport—a great, candid outburst of ecstasy at the first revelation of the unsuspected possibilities of the new game—and you have the story of the coming of automobile racing to Louisville.

Another picture—a great, flat, hill-inclosed, beachwood-fringed oval, an endless ribbon of yellow, a high-peaked modern grandstand, and 12,000 people of Louisville with every eye following around that ribbon two noisy specks, better placed by ear. Then out of the oval clouds of dust swing two living, sputtering, mechanical giants of speed and power—one red, one yellow—equivalent to 180 horses coming down that stretch at once.

Six thousand Kentucky horse-lovers stand awed, aghast almost, with a new spectacle before their eyes; 6,000 of the prettiest women that ever graced a race-track are swayed in one tremor of tip-toe excitement. Then with a single impulse all shout a once: "The red, the red! The yellow's caught! It's passed! Watch, watch that turn—oh!"

What matters it to them that much faster miles have been reeled off on other tracks; that the star of the occasion drives a substituted car; that the event to those who know it is a hippodrome? They neither know nor care. Which is Oldfield, which Cunningham? They can only guess.

But in a roar of explosions, in a dense bank of yellow dust, two daredevils have raced a race never known before, and faster than the fastest Kentucky thoroughbred has ever traveled down that stretch, they have fought the battle of the new locomotion on one of the most historically notable stamping grounds of the horses. Even some of the still unreconstructed old gentlemen of the South tug nervously at their white moustaches and are unable wholly to stifle an exclamation of surprise.

A ONE-FEATURE MEET.

The charm of the meet was not on them; for the meet of itself had little or no charm for those who were of it and did not appreciate the rather odd part they played in the history of American automobile racing. The meeting was a combination of one truly spectacular automobile race with about the most disappointing attempts to get speed and competition out of a number of other four-wheeled vehicles that were ever seen on the track. It was the astonishing contrast between the most prosaic motor carriage driving and the most peculiarly sensational motor speed contest that has ever taken place in America. For the two-heat race between Barney Oldfield and Harry Cunningham, the latter driving as substitute for Tom Cooper, was genuinely sensational, and it is not strange that the spectacle took a strong hold on the crowd. The Kentuckian is impressionable and when, after only a slow race between a few runabouts as a first course to whet his appetite, he was suddenly fed the supreme morsel in motor racing, it is not at all surprising that he forgot traditions, futurities, derbies, and all and yelled himself hoarse.

Thus the meet, while adding little to the actual annals of the sport in the record of mere facts and figures, was by its very peculiarity lifted from the plane of a second-rate sporting event to the status of an affair marking an era in the progress of automobiling—the time when the South stands ready to grasp the new sport and the new method of travel enthusiastically, and with none of the hesitation that characterized its reception of the motor car prior to this summer. The automobile is firmly fixed in Louisville, and the alien sport of automobile racing is now adopted without reservation by the people of Louisville. But henceforth they want no mediocre contests; they have seen the real thing and nothing less will satisfy. They even almost commit sacrilege by admitting that the famous oval at Churchill Downs might be better.

A MONEY RAISER FOR THE KNIGHTS.

The meet was run to make money. Those who are supposed to know say that anything which is done for self cannot be inspired. Hence, any good that the affair may have done in behalf of automobiling in that section of the country was purely subsidiary and accidental. The promoter was the Triennial Association, No. 1, Knights Templars; the object to raise enough currency to take members in good standing to next summer's World's Fair at St. Louis.

The Knights were new both to sports management and to automobiling, so not having the forethought to call in Prince Wells and other old-time bicycle men of Louisville, who had had experience in such affairs, they went at it confidently and blindly—and "fell down." Were it not that they had hired two professional automobile racing men who stepped into the breach, they would probably have had to return the money at the gate.

PRECEDED BY NIGHT PARADE.

The day before the meet there was every sign of a lively affair. It had been well boomed and \$1,600 worth of tickets had been sold for an Oldsmobile to be raffled at the track. Oldfield and Cooper and the record performances of the former had been well played up by the publicity department, and a parade was organized for the eve of the meet.

About fifty automobiles, headed by a Peerless, carried passengers who shot off Roman candles and burned red fire. It was not amazing but it brought out several thousand of the prettiest girls of Louisville and grouped them, bare headed and happy, in the space of about three blocks where one could look upon them and rejoice that he lived to see the sight. The parade finished at the track, where followed a concert and refreshments.

START OF THE RACES.

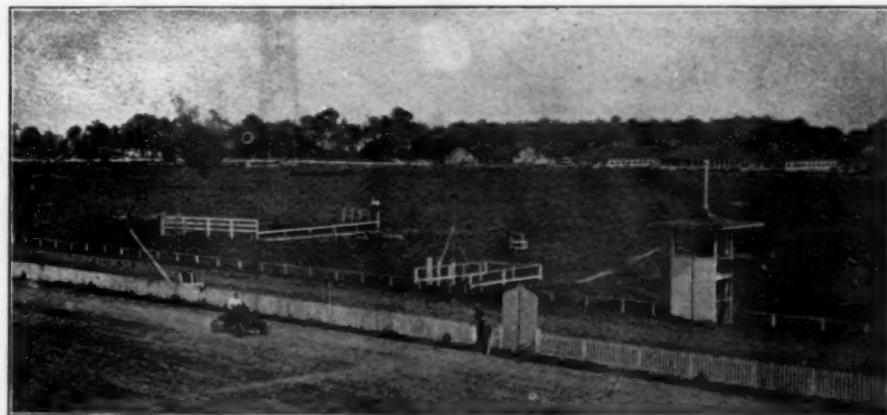
Saturday opened bright and pleasant. The people came to the track early and before 2:30, the time set for the first race, the whole grandstand, its broad steps and the clubhouse portico were well filled. It was a Derby-day crowd; a gentleman who has been in Louisville since 1841 said so.

The officials were slow and the contestants slower. Shortly after 3 o'clock the starters for the first event—a two-mile race for cars under 1,200 pounds—appeared. They were J. K. Goodloe, Cadillac; E. B. Ayres, Cadillac; F. W. Parfitt, Rambler, and Hubert Levy, Northern. Two false starts were made, and then the quartette swung off into the race, with Parfitt soon taking the lead. At the end of the first mile the Rambler led the two Cadillacs safely, while the Northern quit. Then Ayres set a hotter gait around the turn and caught the leader in time to pass him just as the homestretch was reached. Parfitt withdrew, allowing the other Cadillac to run in second place. The time was 4:17 2-5.

After a wait of a half-hour the second race was started. It was a two-mile race for Cadillacs. The three cars that appeared were driven by I. K. Goodloe, E. B. Ayres and O. Wathen, the last named with his car tonneau rigged. As in the first event, no numbers were carried and to the crowd the contestants were unknown and could not be identified. Ayres and Goodloe took an easy lead and toward the end the latter ran ahead to win in 4:33 4-5.

OLDFIELD'S MOUNT DISABLED.

The crowd waited awhile and then stamped and clapped. It was not pleased. The first heat of the five-mile match race was scheduled, but the management was hopelessly helpless. Barney Oldfield had started around the track to warm up the big eight-cylinder Winton Bullet which he was to drive against Harry Cunningham, the latter to appear on the Ford-Cooper racer made famous by Oldfield's record rides on it. Barney got well into the back-



E. B. AYRES WINNING TWO-MILE RACE IN THE CADILLAC.

ment, and so he agreed to race Cunningham, using his old mount. The third regular event, a two-mile race for cars under 2,500 pounds, was called off that half its two starters, J. H. Bledsoe, Peerless,

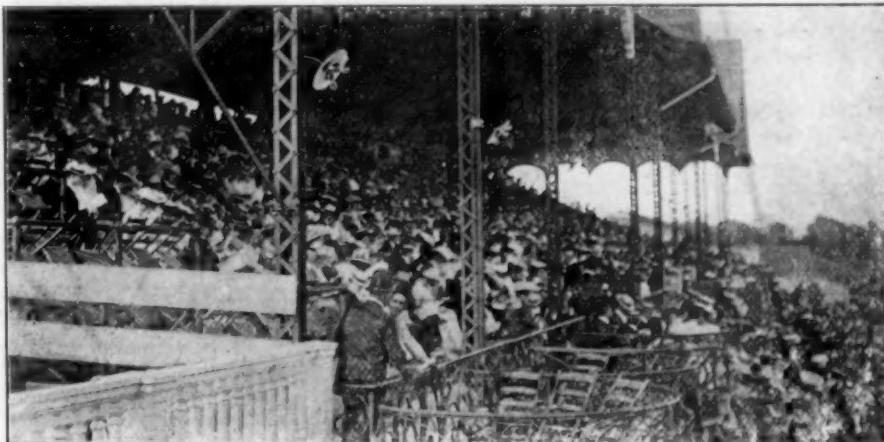
3:09 1-5. Oldfield was asked to keep the crowd from going home and he drove an exhibition mile in 1:03 3-5. It was the salvation of the meet, giving the spectators a sample of what real racing might be and keeping them on hand for the match. That it was a good ride was explained to the crowd by the announcer, who shouted through his megaphone:

"While not breaking the record, this is considered remarkably good time because the track is a running track, not being a trotting track." The real point in connection with the time is that the track, while said to have a "loam" surface, is simply a flat, endless road of ordinary plebian sand, several inches deep and grown up with grass.

Harry Cunningham then took the red racer and drove a five-mile exhibition in 6:20 1-5. Two Winton touring cars took their full quota of passengers around the track and the announcer declared a two-mile match between a Franklin and a Peerless. The latter led until about 300 yards from home, when it stopped and allowed I. Barnett, driving the Franklin, to win in 5:10.

THREE-MILE HANDICAP.

Six contestants appeared for a three-mile handicap, and the officials held a long session on the track trying to arrange the handicaps. Finally, with generous allow-



GRANDSTAND AT CHURCHILL DOWNS CROWDED WITH SOUTHERN GENTLEMEN AND BELLES.

stretch and stopped. The rear axle had broken sharp off near the differential gear. There was no using the car that day and the promised appearance of Oldfield as a Winton racer was perforce impossible. It seems that by a small breakage the commutator went wrong, causing incorrect timing of ignition in some of the cylinders and consequently setting up a terrific back fire which, coupled with the great power of the car and the heavy drag on it by the extremely soft track, simply sheared the axle in two. Barney was naturally disappointed, because he had tried the car just enough the day before to learn its speed possibilities and had hoped to make a triumphal debut with it.

OLDFIELD DISPLAYS SPORTSMANSHIP.

Two questions arose. Would there be a match and would Oldfield ride? Cooper's yellow "999" was not at the track but was in town.

Oldfield finally decided that despite the fact that he was supposed to stick to the Winton, it would be only proper that the people be given some kind of entertain-

ment drive down town to tow the yellow Ford-Cooper racer to the track.

The officials kept under cover awhile and then put on an exhibition mile by twelve-year-old Winston Walker, who circled the oval in an Orient Buckboard in



BARNEY OLDFIELD IN THE WINTON BULLET II, AT THE LOUISVILLE RACES.

ances of time between them, four starters were sent away. One driver's car would not start, and one car's driver would not start. The order of leaving was: Winston Walker, Orient Buckboard; Hubert Levy, Northern; E. B. Ayres, Cadillac, and J. K. Goodloe, Autocar. The Cadillac caught the Buckboard near the end of the second mile and young Walker quit. The Northern also quit, leaving the race between the Cadillac and the Autocar. The latter could not catch up and Ayres won in 6:27 2-5.

THE STARTLING CLIMAX.

Yellow racer "999" had appeared by this time and the match was started without delay. In 6 minutes and 25 seconds the spectators got the worth of their money. Cunningham got away quickest and was allowed a considerable lead before Oldfield's car settled down to work. The red car came around the last turn of the third mile just behind the yellow one and caught and passed it in front of the stand.

It was at this stage of the race that the crowd literally went mad for a few seconds. Those who have seen such races on the good tracks at Yonkers, Cleveland and Grosse Point can hardly realize the difference when, at less speed, the contest is run on a track so laden with sand that after once around the dust never settles during the race and both contestants are practically hidden from sight except when flashing by the grandstand. It was dare-devil, dangerous racing, but it was great sport.

The second heat was a repetition of the first except that Oldfield did not take away Cunningham's lead until the commencement of the fifth mile. Being closer, it was more exciting. The time was 6:13 2-5.

Satisfied after its long waiting for these thirteen minutes of excitement, the spectators passed out of the grandstand and gathered into two crowds, one bound for street cars, the other for the track to see at closer range the big machines and their drivers. Outside the gates a professional gamester started a crap game and a little further up the road another and probably more skilful of the same clan sought to inveigle the home-goers into betting on the contents or lack of contents of three deftly manipulated shells.

Some Auto (Not) Hints.

First fill the gasoline tank. Don't be particular about the kind of gasoline you use. Some manufacturers will caution you to get fuel of certain specific gravity (whatever that means), but this is all nonsense. Any old gasoline will do. If you are possessed of sporting proclivities and like pyrotechnics, it is a good plan to light your cigar while you wait for the gasoline to run through the funnel. A cigarette is considered better by some, but the results are about the same. When you come down, throw water over the blaze, thus producing a most realistic effect. Smothering a gasoline blaze with a cloth or your new coat, in the old way, is entirely wrong.

When filling the water-tank don't bother with a funnel. Just pour the H₂O all over the mechanism. A certain portion is bound to find its way into the tank. If the sparking mechanism is accessible, give it a good drenching. This assures working up a good appetite for dinner when you attempt to start the motor.

Lubrication is most essential—the more the better. Fill the motor case up full. One actual filling of the motor case should last indefinitely (see catalogues).

Before starting the motor advance the spark as far as possible, then grasp the starting handle firmly in the right hand and a bottle of liniment in the other. Pull over the compression slowly. If the sparking mechanism is in good working order, one pull will be found quite sufficient. Now apply the liniment, and kick the agent that sold you the machine.

After the motor is properly started, take your seat in the car, being careful to wrap a robe closely about your feet, otherwise they might get in the way of the foot-levers.

When everything is ready, retard the spark so that the motor will run slowly. This will avoid a jerk in starting and renders the use of the low gear unnecessary. Should the motor suddenly stop on throwing the clutch lever, write a letter to the manufacturer telling him just what you think. He is used to it and the boys in the office enjoy these funny letters that the secretary reads aloud every morning.

Once fairly started, drive as fast as you can, hunting up all the "close shaves" of course. This is the fundamental principle of true automobile enjoyment. If you come to a restive horse driven by a nervous woman, blow your horn loudly. It will be amusing to see the horse prance.

When climbing a hill keep the high gear in as long as possible. If you hear a peculiar knock in the motor it is a sure sign that it is not developing its full power. Advance the spark at once and if the car stops, get mad and swear. That may frighten the motor so it will go.

When it becomes necessary to throw in the low speed gear, wait until the car stops and starts backward—then do it quickly. This is an excellent way to test the chain and gears. The steeper the hill the better the test.

Several wealthy summer residents of Nantucket, Mass., have petitioned the board of selectmen to prohibit the use of automobiles on the island, saying that they were the cause of many accidents to other vehicles. The selectmen could take no such action until September 1, but they limited the speed of automobiles to four miles an hour within the town limits and eight miles an hour outside. The maximum limit will be reduced to six miles an hour if the horses do not quickly become accustomed to seeing the terrible red devils whizzing about the island at the terrific speed of eight miles an hour.

FRENCH MOTOR BOAT RACES INTEREST AUTOMOBILE ENTHUSIASTS.

Special Correspondence.

PARIS, August 8.—Following the brilliant scenes of the automobile week at Ostend, came the motor boat race on the Loire, between Saumur and Ponts-des-Ce, on July 26, and then the 100-kilometer motor boat race, held on the Seine between Poissy and Meulan, on Sunday, August 2, the first event of the kind to be organized by the Automobile Club of France.

Although the weather was anything but favorable, the heavy clouds and frequent showers of rain did not prevent a characteristic crowd from gathering at the start, near Poissy, about thirty miles north of Paris. Many faces unfamiliar to the automobile world were to be seen, but the crowd in general was made up of well-known automobile enthusiasts, either owners of speedy vehicles or leading members of the industry. The river was a scene of early activity, craft of all kinds hurrying about, the motor boats themselves naturally attracting most attention, as they dashed in and out at high speed, all panting hard. The racing boats were of strange shapes—very little boat and much machinery. They were not the customary boats of yesterday, but surely the boats of to-morrow—low, narrow and of tremendous power in proportion to their size.

Twenty-four racing boats and fifteen "cruisers" were scheduled to start. There were three classes, separated according to power, boats of from 5 to 30 horsepower being entered. The classes started at twenty-minute intervals. It was a wonderful sight to see the strange craft gathered at the start and eager to get under way for Meulan, 100 kilometers up the river.

Many veterans of the Paris-Berlin, Paris-Vienna and Paris-Madrid automobile races were to be seen walking about on the river bank, evincing as much interest as if some great road contest were scheduled for the day, instead of a new sport—motor boat racing—which all Paris is talking about and advocating as safer and more interesting than automobile racing.

The race was won, after four hours and a half of fierce struggling, by Senot's *Flore*. The *Muzette* was second, and the *Narval* third. The *Flore* was fitted with a 24-horsepower Otto engine; the *Muzette* with an 18-horsepower Vinot and Deguingand motor, and the *Narval* with a Gobron-Brillié motor of 35-horsepower.

The winning boats finished in the following times: *Flore*, 4:31:49; *Muzette*, 6:17:49; *Narval*, 6:18:32. The average speed of the *Flore* was at the rate of twenty-two kilometers an hour, or 13 5-8 miles, over a course of sixty-two miles in length.

Six Cleveland tourists, Mr. and Mrs. F. W. Geddes, Mr. and Mrs. A. W. Powell, Mrs. J. Powell and Mr. W. D. Holcomb, are touring through Michigan in Winton cars.

Carbureter Troubles and Remedies.

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Of the various functions which contribute to the successful workings of a gasoline motor, that performed by the carbureter is of first importance. Unfortunately, however, the principle of the carbureter is not thoroughly understood by all operators, and the result is that its proper care is frequently neglected.

THE MIXTURE.

Liquid gasoline is not explosive; neither is its vapor, until mixed with air in certain known proportions. One volume of gasoline vapor mixed with from eight to ten volumes of air makes a rich gas vapor not unlike illuminating gas; it will burn but is too rich to explode. If about nine volumes more of air are now mixed with this gas it becomes very explosive. In other words, there are from seventeen to twenty volumes of air to one of gasoline vapor in a mixture best suited to the requirements of the explosion motor.

In addition to securing the correct proportions, it is necessary that the gasoline vapor and air be intimately mixed in order to produce a gas of the highest explosive value, so that a motor of given bore and stroke shall yield its maximum power. If the mixture is not perfect combustion will be slow and the best results cannot be attained.

A carbureter must not only produce a mixture of the necessary richness, but it must also be so constructed as to produce a proper commingling of the gasoline vapor and air. If the mixture is too rich, its explosive value is materially reduced, and it interferes with the proper working of the motor, leaving a deposit of carbon on the ignition plug, on the interior of the cylinder, on the end of the piston and on the valves. A deposit of this sort is a frequent cause of short circuiting; it causes premature explosions or the missing of explosions, valve and lubricating difficulties and minor troubles. Not only is a motor working at a disadvantage if the mixture is too rich, but also if it is too weak.

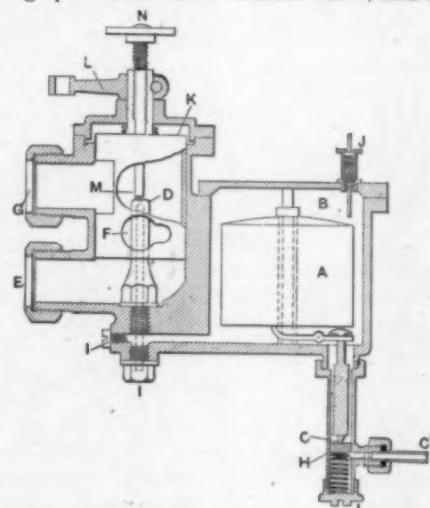
The functions required of a carbureter are not easily met. It has taken years of experimenting and development to bring the little apparatus to its present state, and it cannot be denied that there is room for further improvement.

FORMS OF CARBURETERS.

The first use of a liquid fuel for gas engines was made by Gottlieb Daimler, a German inventor to whom the automobile world is indebted for many valuable inventions now considered common property, and the introduction of the Daimler carbureter marks an early epoch in the history of practical self-propelled vehicles. A defect in Daimler's apparatus was corrected by his associate, William Maybach, who designed a carbureter with a fuel-regulating float.

There are three distinct types of carbureters now in use—1, surface carburetors, better known as vaporizers; 2, apparatus in which the air is drawn through the gasoline, and 3, carburetors in which liquid gasoline is sprayed into a chamber, where it is intimately mixed with the proper proportion of air. Practically all carburetors in use to-day are of spraying type, and, although differing greatly in design and construction, the principles involved in their operation are the same.

The general construction of a spray carburetor is shown in the accompanying diagram. The apparatus includes a float and a float chamber, a gasoline valve which is opened and closed by the action of the float, a suitable passage to the mixing chamber, a spraying nozzle, admitting fuel to the mixing chamber, a fixed air opening of passage, a second or auxiliary air passage provided with a suitable valve, and a



A—Regulating Float. B—Float Chamber. C—Float Actuated Needle Valve. D—Spraying Nozzle. E—Primary Air Inlet. F—Secondary or Auxiliary Air Inlet. G—Passage to Inlet Valve. H—Filtering Gauze. I—I—Cleaning Nuts or Screws. J—Float Depressing Pin. K—Air Valve. L—Air Valve Lever. M—N—Spraying Nozzle Feed Regulator.

tube connecting the carburetor with the motor. The apparatus is fed with gasoline either by gravity or air pressure, usually the former, the supply tank being mounted above the level of the carburetor, fixed to the dash or within the body of the car.

ACTION OF THE CARBURETER.

The action of the carbureter is as follows: the float chamber being partially filled with gasoline, and the level of the fluid rising to the same height in the spraying nozzle, the suction of the motor draws a definite quantity of gasoline—depending upon the piston speed—from the nozzle with considerable force into the mixing chamber, in the form of a spray, which commingles with a definite amount of air that is drawn simultaneously through the primary air passage. An additional sup-

ply of air is also drawn in through the auxiliary valve, which is regulated to admit the right quantity of air to produce a correct mixture. This mixture passes into the combustion chamber where it is compressed and exploded. A quantity of the gasoline which is in the carburetor has now been used, thus lowering the level of liquid in the spraying nozzle and float chamber, whereupon the float settles down, thereby opening the needle valve and admitting a further quantity of fuel from the gasoline supply tank. As this flows in the float rises, closing the needle valve and preventing an excess of fuel from entering the apparatus.

Thus it will be seen that the function of the float is to maintain the proper level of gasoline in the carburetor, in this way assuring a constant feed regardless of the level of the fuel in the supply tank and whether the gravity pressure is much or little. No matter how perfect the commingling of gasoline spray and air in the carburetor may be, the mixture remains a vapor until it is drawn into the cylinder of the motor, the heat of which converts it into a true hydrocarbon by dissociating the hydrogen and oxygen elements of both the air and gasoline just before it is ignited by the spark.

While the carburetor is in action there is always a reserve gasoline mixture in the mixing chamber and tube leading to the motor, so that the float is not required to respond instantaneously to the suction of the engine; in fact, while the car is running the carburetor float is in almost constant movement, always maintaining the proper level of gasoline. In most carburetors a means is provided to regulate the quantity of gasoline admitted to the mixing chamber at each suction stroke, either by introducing a valve between the float chamber and the spraying nozzle or by adjusting the size of the nozzle opening. The flow having been once correctly regulated, this adjustment should not require frequent alteration.

In modern construction, especially in the fuel system of the larger cars, the operator is able not only to regulate the strength of gasoline mixture by controlling the auxiliary air passage but he can also decrease or increase the quantity of mixture admitted to the combustion chamber of the motor. The quantity of vapor taken into the cylinder is automatically regulated by a motor-driven governor, the action of which may be cut out or nullified by the operator at will. This automatic governing mechanism is adjusted to reduce the quantity of mixture admitted when the motor has reached a certain prearranged speed, and to admit increased charges when the speed has fallen below a certain minimum. In this way the speed of the motor is controlled regardless of its load and racing when the clutch is drawn, is prevented, the governor at once cutting off the supply of vapor. In hill climbing or at other times when a maximum power

is required, the action of the governor may be prevented by a small foot pedal, commonly called the "accelerator," which holds the throttle valve open so that full charges can be taken into the cylinder.

THE CARBURETER IN USE.

"Light" gasoline—that is, gasoline of high test by the Beaumé scale, should always be used. Slow-speed horizontal motors frequently require a fuel not lighter than 68°, while multiple-cylinder high-speed motors yield better results when 76° gasoline is used. In the absence of a Beaumé hydrometer, a handy method of testing the fuel and one that is fairly reliable, is to pour a little of the doubtful gasoline on the palm of the hand and move the hand rapidly back and forth. If the fuel evaporates at once leaving the hand dry, it may be used with safety, but if it evaporates slowly and leaves a greasy deposit its use should be avoided.

PRIMING THE CARBURETER.

In starting the motor it is usually necessary to "prime" the carbureter by pressing down on a small pin, which nearly touches the float and projects upward through the float chamber, thus admitting the first charge of gasoline to the carbureter, but when the motor is running the gasoline is admitted to the carbureter automatically by the action of the float. Instead of a projecting float-pin, one type of carbureter is fitted with a rubber bulb, pressure on which forces the float down and accomplishes the same result.

The tendency is, perhaps, to overdo this initial "priming," in which case the motor will not start because the mixture is too rich. If this is thought to be the case, the electric current should be shut off, the motor "turned over" a few times, the spark switched on and, starting, tried again. This time the motor should start without trouble. (It is assumed that the sparking mechanism is in perfect working condition.) If the motor still refuses to start, it is possible that while turning the motor over to exhaust the surplus gasoline the operator will go to the other extreme and that the carbureter will require additional "priming," but the previous experience will teach him not to do it to excess.

REMEDYING CARBURETER TROUBLES.

Sometimes the motor will start readily enough, but dense smoke having a strong odor will issue from the muffler. This is generally an indication that the mixture is too rich, although infrequently it is due to an excess of lubricating oil in the cylinder. To correct the mixture, more air should be admitted to the carbureter by manipulating the small hand air lever—sometimes erroneously called the "gas lever"—which is usually mounted on the steering post or in some other convenient place.

A note of warning is in place against running a gasoline motor in a closed room while an improperly adjusted carbureter is yielding an excessively rich mixture. The

exhaust gases in this case are poisonous, and they have a bad effect on the eyes, so plenty of ventilation should be assured.

If careful adjustment of the air lever does not correct the mixture, and it still remains too rich, the valve regulating the flow of gasoline to the mixing chamber of the carbureter should be adjusted to admit less of the fluid at each suction stroke. In case this does not give relief, and the carbureter seems to be constantly flooded, it is more than likely that the carbureter float is not properly fulfilling its function. This may be due to the float being punctured by repeated use of the float pin—the float is made of very thin metal—or it is possible that one of the soldered joints has opened. In either case the float will fill with gasoline and sink to the bottom of its chamber, thus opening the needle valve and preventing its closing. If the float is intact, it may be found that the needle valve stem is bent, or the valve has stuck, or that the presence of foreign matter prevents it closing. Repeated pressing on the priming pin should dislodge the dirt, but if it does not the cleaning nut at the bottom of the carbureter should be removed, allowing a considerable quantity of gasoline to flow through the float valve to the ground, so that the obstruction may be washed away. If examination proves that the float is punctured, or its needle valve bent or otherwise out of order, the repair should be left to an expert, unless it is of such a nature that it can be easily corrected by the novice. It is advisable to carry an extra float in the tool box, carefully wrapped up to protect it.

The primary air passage to the carbureter usually has a tube extending down to the muffler, so that warm air may be drawn in, rather than cold air. The outer end of this tube is flared or funnel shaped and the mouth is covered with a fine wire gauze to prevent the admission of dust or other dirt. This gauze may get stopped up with mud or dust, thus choking the air passage, in which event the mixture will be found too rich to explode properly. An examination will quickly discover this trouble, and the gauze should be cleaned so that the carbureter may get its normal supply of air. This trouble is not infrequent, but the cause of it rarely occurs to the operator, and may be discovered only by accident after every effort to get a proper mixture has been unavailing. A little thought, however, will determine the difficulty, for if the mixture is too rich and the carbureter is not flooded, it is evident that something is interfering with the passage of air. If the gauze covering over the mouth of the air tube should get broken it should be replaced at once.

MIXTURE NOT RICH ENOUGH.

Experience proves that more difficulty is occasioned by too weak a mixture than by too rich a gas. The symptoms of this trouble are insufficient power on hills and bad roads and the missing of explosions. The first thing to do, if regulating the air

lever does not correct it, is to ascertain if the carbureter passages are all free from obstruction. These passages are not large, and they are more or less intricate. A partial stoppage of any one of them will result in a weak mixture. Removing the cleaning nut at the bottom of the carbureter and allowing a quantity of gasoline to escape, should clean the passages without trouble. Some carbureters are provided with other cleaning nuts, which close the ends of the various passages, and if these are removed it will be found that a wire can be forced through the passages, thus dislodging any obstruction.

Carbureters are usually fitted with several layers of wire filtering gauze of very fine mesh, located near the point where the gasoline from the supply tank enters the apparatus. The object of this gauze is two-fold—it not only filters the gasoline, but also prevents a possible "back fire" in the carbureter from communicating combustion to the gasoline tank. Although not a frequent occurrence, a "back fire" may be caused by a broken or inoperative inlet or exhaust valve permitting communication of flame to the gasoline tank if there is no such gauze. If foreign matter gets into the main supply tank—and this is bound to occur to a greater or less extent in time—it will find its way to the carbureter and the filtering gauze may get clogged—and cause a weakening of the mixture. This filtering gauze, in most carbureters, is easily removable, and should be taken out occasionally and cleaned.

In modern practice use is frequently made of a throttling device, operated either manually or by the action of a motor governor, and it is possible that the mechanism may get out of adjustment and cut off the gas mixture partially or altogether.

It may be found necessary to so regulate the spraying nozzle valve as to admit more fuel to the mixing chamber at each suction stroke, but this should not be a frequent requirement. Sometimes an examination will disclose a break in the gasoline supply tubes, allowing the gasoline to escape; or a coupling may work loose, preventing a proper gasoline supply; or one of the supply tubes may be stopped up. A valve is usually fitted to the gasoline supply tube immediately below the main tank, and this valve may be closed accidentally. In this case the motor will not start, or, if it should start owing to the presence of sufficient fuel in the carbureter, it will soon stop when that reserve has been exhausted. It is a good plan to inspect this valve each time when starting the motor, because much trouble may be caused by a little oversight in this direction. Manufacturers frequently recommend that this valve be closed after each use of the car, but if this is done it is the easiest thing in the world to forget to open it the next time the vehicle is to be used.

The quantity of the charge drawn into the cylinder of the motor at each suction stroke is determined, partially, by the

speed of the engine, the suction increasing with the piston speed. From this fact it frequently develops that a mixture found to be correct at starting will require some change in the proportions of gas and air when the engine attains its normal speed.

MISCELLANEOUS TROUBLES.

If gasoline is allowed to stand for any length of time, even in apparently close receptacles, the more volatile part will pass off into the atmosphere. It is advisable, therefore, if a car has been idle for a long time, to remove the cleaning nut at the bottom of the carbureter and allow a quantity of gasoline to escape, so that the carbureter will receive a fresh supply from the tank.

Water in the carbureter is not an infrequent cause of its failure to work properly. All gasoline contains more or less water, which, being heavier than the more volatile liquid, settles to the bottom of the supply tank and finds its way to the carbureter. If the cleaning nut is removed, the water—which will have collected in the lowest part of the carbureter—will pass out with the gasoline. Sometimes a quantity of water will collect on top of the carbureter filter, in the form of a film, interfering with the passage of the gasoline, in which case it will be necessary to remove the gauze for cleaning.

When filling the gasoline tank always use a strainer funnel; that is, a funnel fitted with a wire gauze filter. If one is not readily procurable, a tinsmith can easily solder a piece of fine copper wire gauze into an ordinary funnel—not down close to the tube opening, but about two-thirds of the way down from the top of the funnel, so that the filter will be of reasonable size. In the absence of a regular filtering funnel a piece of cloth may be fitted inside an ordinary funnel, preferably fine linen. Linen will absorb most of the water in the gasoline, and is particularly desirable on this account. Chamois skin has the same quality and makes an excellent filter. Never use the same funnel for filling both the water and gasoline tanks, but keep a filtering funnel exclusively for gasoline. The little extra trouble involved will be repaid many times during a season's driving.

The gasoline tank in American cars, especially in those of horizontal engine type, is usually of large area and has a flat bottom. When the supply of gasoline, therefore, is nearly exhausted it will collect in one end of the tank, depending upon the inclination of the car, so that in ascending or descending hills or on a sloping road the flow of fuel into the tubes to the carbureter will be stopped. In this event the operator will be made aware of the depletion of the supply by the continual missing of explosions except when the machine is running on level ground, when the action will become regular again. When this peculiarity is noticed it is time to replenish the supply of gasoline.

If it should ever be noticed that the

motor does not respond to the movement of the carbureter lever, an examination may show that the rods from the lever to the carbureter, which are usually very light, have become misplaced or bent, preventing the proper working of the air valve.

As a certain degree of warmth is necessary to secure a proper mixture trouble will sometimes be experienced in cold weather. It may become necessary to wrap the carbureter with a hot cloth to get the motor started, care being taken that the cloth does not cover or project over the air passages. A hot cloth may be wrapped around the gasoline supply pipe as well, thus heating the fuel sufficiently to assure good carbureting. These cloths should be removed, of course, as soon as the engine is running properly and before starting the car. Many operators wind the carbureter with asbestos wicking for protection in cold weather.

SUMMARY.

The following summary of carbureter troubles, the remedy for each of which is mentioned in the foregoing, may be of value for quick reference and for refreshing the memory:

| | |
|-------------------------|--|
| Mixture too Rich. | Too much "priming." |
| | Too much gasoline. Punctured float. Float valve not working properly, owing to bent needle, or presence of foreign matter in valve seat. |
| | Primary air passage clogged or partially obstructed. Air valve not wide open |
| Mixture too Weak. | Insufficient "priming." Carbureter passages clogged. Filtering gauze covered with dirt. Throttle valve out of adjustment. |
| | Insufficient flow of gasoline. Tank valve closed. |
| | Break in gasoline supply. Starting crank turned too slowly. |
| | Bad gasoline; originally, or from standing |
| | Water in gasoline. |
| | Carbureter too cold. |
| | Gasoline supply exhausted. |
| | In this paper an effort has been made to suggest all of the more probable carbureter troubles. Although the list looks rather formidable, it should not be forgotten that only one of the difficulties mentioned is likely to occur at a time, and perhaps none of them during a whole season. Only a little care and attention is needed to keep the carbureter in perfect working condition. |

A Combination Tool.

An ingenious Englishman has invented a tool which combines in itself the functions of a lifting jack, a vise, and a hand drilling machine. It consists essentially of a yoke casting, to which are hinged two long jaws,

and a large screw bored hollow to receive a central spindle with a ball-thrust bearing in the screw.

With the jaws in one position and the screw passed through them, the affair becomes a vise, which may be clamped to a fence rail or anything of the sort at hand. When the jaws are swung down through a half-circle, and secured against spreading, they become legs, and the screw is then made to work vertically in the yoke. A suitable pad is provided on the upper end of the central spindle, and a ratchet lever works the screw. Thus a jack is formed.

To drill, the jaws are restored to the vise position and the whole affair is turned upside down, the jaws being clamped on the work by a chain clamp. The large screw then passes through the yoke casting, where a setscrew holds it from rotating on itself, and a suitable hole in the centre of the pad on the end of the spindle (now the downward end) receives a drill. A crank on the upper squared end of the spindle turns the drill, which is fed by slowly rotating the big screw as desired. For heavy drilling the device may be mounted on a wooden rail by means of chain tackle provided for the purpose.

A considerable range of emergency work appears to be provided for by this very clever contrivance.

Official A. L. A. M. License Plate.

Members of the Association of Licensed Automobile Manufacturers are now affixing



FIRST LICENSE PLATE STRUCK OFF.

official license plates to all vehicles of their manufacture. The first of these plates to be issued is shown in the accompanying illustration. The design shows a reproduction of the original drawing of the Selden vehicle, elongated to make room between the front and rear ends for the lettering, which includes the number of the protecting patent and its date of issuance. These plates are all carefully numbered and registered as they are supplied to members of the association.

A list of the registered automobile owners in the State of Connecticut has been published by the Secretary of State, together with a reprint of the laws regarding registration and speed limits. The list discloses the interesting fact that up to August 8, 1903, automobile licenses had been secured. Since that date and up to August 12 the total had been increased to 1,064.

Touring in the Middle States in a Light Gasoline Runabout.*

BY J. WALTER SCOTT.

The road out of Lexington was good and for a few miles level and bordered by stone fences. These fences were made of natural stones selected with such care that without mortar they fitted so snugly that a mouse could scarcely have found a crevice through which to pass. Some of the fences were made of stone set diagonally until about three feet high, then a crown was made of one layer of stone set perpendicularly. These fences perhaps were built in the old slave days when there was an abundance of free labor, but they still stand.

In many places along the highway we saw old negroes sorting and breaking stones to be used in repairing the roadway.

The road finally led along the side of a great gorge; this had been made possible by blasting a way through solid rock. In the narrow valley below nestled a few scattering farm houses looking like toy buildings from our elevated position. Down and still down the road wound its way until we came to the narrow river below. There was a distillery and a little settlement called Camp Nelson from war times.

The natives were polite and invited us to rest awhile but we were anxious to be on our way. They did not seem to appreciate the grand scenery at their doorways and could not understand our quiet enthusiasm. A long steady climb of several miles followed in which we were caught in a sudden shower that seemed to have been made just for us, for we could see that it was not raining a few hundred yards away at either side of the road. It was of short duration and the sun was soon beating down as only a Kentucky sun in July can. However, when we were running we did not feel the heat.

We reached Danville about 11:30 A. M. and I found that the gasoline tank was leaking in another place. The repairman on whom I called wanted to know if the next day would not do to have it finished and looked at me in amazement when I said I must have it immediately after luncheon. He declared it could not be done, he did not have the time though I could not see that he was doing anything special. I borrowed a ten gallon can, or rather a well-dressed, seemingly well-educated colored man borrowed it for me and assisted me in draining the tank, and I succeeded in getting him to take the tank out.

After luncheon I returned and, encouraged by my presence, the repairman finally had the work completed by 3 P. M. The charge of only 75 cents for the work was the most reasonable of any so far on the tour. I bought a gallon of gasoline to fill

*Last previous installment contained in issue of August 8.

the tank from a hardware store and paid 25 cents, the highest price I had met.

From Danville the road was very fair to Perryville. When we reached this point I commenced to think we would get no farther on account of fractious horses. The first one we met took three men to lead by and then I thought he would get away from them. Two more were almost as bad, and we were fifteen minutes getting through a little village of two or three hundred persons. Then we were barely outside of the village when we met another horse. Two women were out of the buggy unhitching him, when we were yet a quarter of a mile away. I ran

were soon flying along over a smooth road of red gravel. Smooth with the exception of what they called "hog backs." This hog back is a Kentucky idea. It is a narrow abrupt ridge of about a foot in height of the same formation as the road and built across it at intervals of about a hundred yards on the hills and designed to prevent the water after a rainfall from accumulating in volume enough to wash out the road. It may answer its purpose but one would prefer to have the road washed out, for when you hit one of those unless you have slackened the speed of the automobile, you wonder when you are going to alight again, and when you do the shock is disconcerting.

There was more beautiful scenery but the climax was reached just at twilight. We had been steadily climbing a road along the side of a hill that could almost be called a mountain, passing fine homes nestling under the hill on small plateaus. At last the valley, level and broad, lay hundreds of feet below us with its fields of different vegetation resembling a great checker board with a river flowing through the centre. Across the valley was another great hill covered with dense forest of green. The sun had set leaving a red glow in the heavens.

We were mute with admiration.

It was at least a five mile climb, mostly on the low speed, before we reached the divide and could commence to make some speed. This we were anxious to do for it was growing dark and we were without lamps with yet seven or eight miles to go over a strange road. Just then we ran into a stretch of road where there had been a shower not over a half hour before and for a mile or more the road was too slippery for speeding with safety. Then we passed the zone of the shower but within another mile it had grown dark and we had almost to feel our way along.

Luckily there was an early moon and soon it was high enough to make some light.

A little later we met a horse whose driver was plucky and offered to drive by, but I did not wish to take any chances and, stopping the motor, went forward to assist in leading him by, and it was a good thing for it was about all we both could do to hold him. In the mean time the young lady who was with him had gotten out too for she was badly frightened.

We were again on our way and after another climb of a half mile we crossed a bridge and were in the outskirts of Bardstown, but had to get directions before we could find our way up the winding road to the hotel.

It was 8:30 o'clock and we were thankful to reach any haven. It was too late to get dinner, the polite landlord informed us. "Yes, there was a restaurant," he said, and later we found it. It was not exactly a restaurant but the typical ice cream parlor of the village and they served some kinds of food. The menu in our case was a bowl of



ROUTE OF THE TOURISTS.

nearer and then stopped the car and motor and walked forward. Luckily two men came along with a horse that did not frighten and at my request they readily consented to lead the horses.

I then proceeded, but in a discouraged way, thinking that I was getting into a neighborhood where the horses had never seen an automobile and I should have nothing but trouble.

The road became very bad which added to our woes.

More teams had to be led by. After about 17 miles, we reached Springfield, and from there on they reported the roads were good. This report was correct and we

milk and crackers, some cold boiled ham, bread and butter with milk to drink. But the 70-mile drive that day with the difficulties with horses had made us hungry and we enjoyed it.

Returning to the old hotel; it is old, at least a hundred and fifteen years they can account for; we turned in.

The next morning was the Fourth of July but to us it seemed a Sunday morning, every thing was so quiet and peaceful. No fire-crackers, not one all day. The Southern youth takes another day or rather two days, Christmas and New Years, to burn powder and blow off his fingers. Our room was directly over the main entrance to the hotel and while dressing I heard voices pitched in the high key of anger. I stepped to the window and looked out.

What do you suppose they were discussing? "How Hayes stole the Presidential chair," as they termed it, and getting out of humor over something Northern Democrats had forgotten.

An examination of the car showed the tank was leaking in another place. We had it taken out and gave orders to solder every rivet head and every joint. This was done and I had no more trouble with the tank.

A local enthusiast suggested we visit the Abbey of Gethsemane and volunteered to accompany us. We gladly accepted the offer. We started about 2.30 P. M., he leading the way in an Olds and accompanied by his young daughter. It was only sixteen miles but we had more trouble with frightened horses in that sixteen miles than I had in the entire trip across the State of Indiana.

In one small town where about twenty saddle horses were hitched, they all bolted. There was a number of broken hitch straps but no other damage.

The road was a beautiful winding one and for miles shaded by overhanging trees. There were no very steep hills and but for the "hog backs" the roads would have been ideal.

This cloistered monastery is one of the only two in this country. The ladies were permitted only to enter the inner court, but we were escorted through the entire building and grounds. It was like a bit of the old world. The monastery is like an old castle on a high hill. The grim monks never speak within the walls. When they die they are buried at night without a coffin. They eat on bare board tables with wooden spoons and sleep on boards with but a blanket to soften the bunks.

On our return I called in a doctor to see my wife who was quite ill. He said it was the extreme heat and fatigue of travel, and that it would be very unwise to attempt driving in the sun for a day or two.

The reports of the condition of the roads from Bardstown to Mammoth Cave were such that I had had half a mind to go on by railroad anyway, but the doctor's verdict left no alternative, and we did so the next morning.

Returning the following morning my wife was so ill that she went to bed. This resulted in another bit of Kentucky hospitality. A gentleman introduced himself to me, and said, "I understand your wife is ill here at the hotel. If the doctor thinks it is serious, or likely to be protracted, it is no place for her. Bring her over to my house." The proprietor of the hotel, and his wife as well, were more than kind and we had every comfort possible for a small town.

Happily my wife was able to be up the next morning, and we visited the Catholic Church where we saw a painting presented by the exiled King of France when he was recalled to the throne from Bardstown. They also had some other paintings by old masters; one a Van Dyke.

That afternoon at 2.30 o'clock we left for Louisville, a distance of 39 miles. For the first few miles the roads were fair but of course supplied with the usual "hog backs" on hills. Then we came to a long winding hill and to make matters worse we encountered two horses loose in the road and had to take the dust they raised for miles, until a man ran out and turned them into a barn lot. Then we had to pause on a hill side in the blazing sun while a great flock of sheep was driven past, and again a few miles farther for a smaller flock.

There was some nice bits of scenery on this route which we enjoyed. Reaching the outskirts of the city, we ran down an asphalt street for about two miles, but learned on inquiry that to reach our hotel we must take the rough cobble-stone pavements for another mile. We reached the hotel at 5 o'clock and housed the car at the repair station of Prince Wells, who is a prince of good fellows and destined to do the leading automobile business of the city as he has the cycling for the past ten years.

DEDUCTIONS.

A runabout, not in the best condition to start on, had carried us for hundreds of miles over roads some of which were probably as bad as any in the country. It had done this without a serious break of any kind and without delays for repairs of duration long enough to be annoying. We had always managed to get to a convenient point to minister to our own wants while the few repairs were being made and so were not inconvenienced.

The tour had been one of the most pleasant experiences of our lives; we learned more of the country through which we passed than we could possibly have learned any other way. In spite of the indispositions at the close, our general health was vastly improved. In boyhood days an ardent amateur athlete, my muscles in late years had become softened. But in two weeks they had again become like steel. Not from any great strain put on them, but like a cat always prepared to spring upon an imaginary mouse, one's muscles must be ever ready to respond, for a clutch must be thrown out and a brake set in a twinkle of an eye often to save disaster. And it is

this readiness for instantaneous action that builds up the muscles.

Touring is so much more pleasant than driving about the vicinity of your home that it will be a revelation to you. Try it. But don't start until you are absolutely sure that you not only understand your machine thoroughly but are capable of handling it under the most exciting and trying circumstances and conditions.

We made this tour without causing a single runaway, but we were lucky, for in spite of our extreme caution in that respect we might have caused a dozen. For in a dozen instances, whether the horse would get away or not was so problematical that it might as well have resulted in his getting away and causing injuries to the occupants of the vehicles.

(Concluded.)

SIOUX CHIEF BUYS A "MEDICINE WATER" HORSE.

Special Correspondence.

MINNEAPOLIS, Aug. 15.—What is probably the most remarkable purchase of an automobile that has ever been made was effected recently near Billings, Mont. Maurice Wolfe, traveling representative for the Olds Company, with headquarters in Minneapolis, became stalled in his run-about in an irrigation ditch near Billings and were hauled out by two cowboys with their lariats. Upon entering Billings, there was quite a procession behind the automobile—in fact, about all the Indians, squaws and papooses on the Sioux agency.

Chief "Big Mouth," however, would not condescend to look at it. His friends, who insisted that he was not indifferent to the latest styles, suggested that the machine be driven over to his house. When it stood before his door the chief consented to come out and see "the white man's pony." After half an hour's silent observation, "Big Mouth," evincing no special interest, consented to take a ride. During a ten-mile spin around the outskirts of the town he was moved to ask if Mr. Wolfe's car "wouldn't go better on the track." The chief conjectured it was a kind of locomotive. Upon further explanation "Big Mouth" reached inside his buckskin shirt, drew out a tobacco pouch filled with gold and greenbacks and said: "Guess buy him. How much?"

But before the red man would give the price of thirty ponies he had to learn that his new steed would travel very much faster and farther than any horse; that it would carry two riders as easily as one; that it never "bucked" or shied; that it could journey through a prairie-dog village without ever stumbling in the holes; that it ate no grass like a pony, nor coal like a locomotive, but was easily satisfied with a little "medicine water" from the agency store.

But before the purchase money was paid over Mr. Wolfe had agreed to have the auto painted, at his own expense, the brightest red that could be bought in Billings.

How to Run a Rambler Touring Car.

Progressive manufacturers are becoming alive to the necessity for furnishing to purchasers of cars something more complete than a bald schedule of things to do and things not to do. The automobile is no longer the mysterious vehicle that it was in the earlier days, and buyers are now much wider awake to the merits and demerits of the various forms of construction and methods of operation. They are very apt to be suspicious of the manufacturer who follows the policy of concealment and contrarywise they are likely to have confidence in the builder who takes them into his confidence and gives them intelligent and intelligible instructions regarding the kinks and cranks of his car. An extremely interesting example of the latter method is a little pamphlet prepared by the builders of the Rambler touring car. From this we publish extensive extracts, which are not only directly useful to the large number of users of this car, but contain a great many suggestions for users of other gasoline cars of the runabout type. The opening chapter of this little pamphlet is devoted to preparations for starting.

PREPARATIONS.

Examine the gasoline and water tanks, and see that both have sufficient. The gasoline tank should not be completely filled, a space of about one inch always

some of the lubricant through the feed pipes that run to the motor shaft bearings and to the crank pin. The grease in these cups should be of good quality, as it lubricates important bearings, and any suggestion of acids or impurities would do harm. The oil for the cylinder should be of high fire test and of a good quality, as a low-grade oil fouls the cylinder, the plug, and prevents the motor doing its best work. This oil cup should be adjusted so that about six drops of oil per minute are fed to the cylinder.

Upon raising the seat, on the right of the carriage over the main shaft will be seen a vertical tube with a screw cap. This is the lubricating point for the transmission gear. It should be filled with a good grade of light lubricating oil, and should be attended to each day. A thin oil is best for this part, as it is distributed in the transmission centrifugally, and were a heavy oil used, it would either not answer the purpose, or would do it very imperfectly.

On the left side of the carriage will be seen cups encasing the two-to-one worm gears, and the lower of these should be kept moderately full of oil, sufficient always to allow the lower gear to revolve in oil. At the rear of the carriage and attached to the radiating tank, will be found a brass

journal on the shaft, and if neglected will cause one or the other to cut.

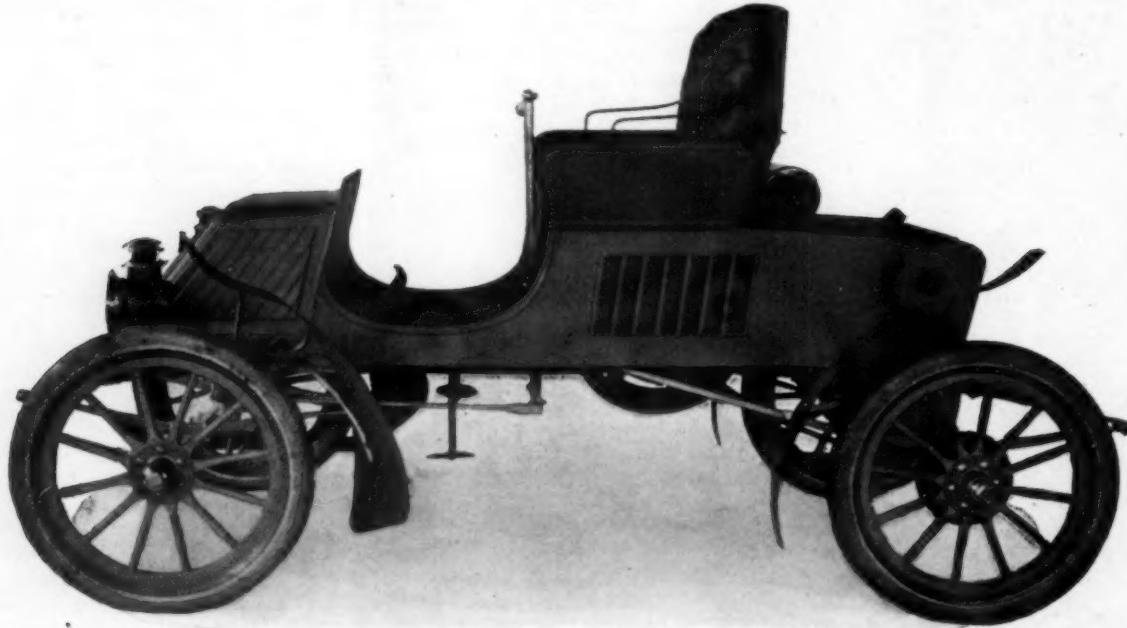
On the rear axle tube will be seen four projecting oil cups with knurled tops, screwed into the casing, for lubricating the four roller bearings. The tops should be rotated until the hole in the inner cup is visible, and filled with the same grade of oil as used for the transmission, the covers then returned to their original and closing position.

The carriage is then ready for starting.

TO START.

Open the oil channel that lubricates the cylinder by turning indicator *N* knob upwards. Rotate lever *G* to the left two or three times, which action submerges the float in the carburettor and causes the gasoline to flow over the outlet in the mixing chamber, filling that chamber with a rich carburetted mixture. Open the throttle by turning the small thumb lever *H* toward the front of the carriage, to admit the gas to the engine.

See that the transmission clutch lever *X* is disengaged, i. e., in a position midway between the high and the low speeds. Being seated, press lightly on the pedal *W* and with the right hand rotate the starting crank forward and downward until the motor has made one or two revolutions, and ignition of the gas has occurred and impulses produced. The pedal can then be released and the throttle controller turned toward the rear of the carriage to



1903 MODEL OF THE RAMBLER RUNABOUT OR ROAD CAR.

being left at the top, to permit the expansion of any vapor that may be generated in hot weather. The sight feed oil cup *N* should be full of oil, and the three grease cups *K* should hold sufficient quantity of lubricant to run the carriage for the day. A half turn to the right should then be given to each of the grease cups to force

tube running to the cam shaft bearing, which should be filled with a grade of oil similar to that used for the transmission. On the transmission itself, and attached to the inward part and next to the fly wheel will be seen another tube *O* closed by a screw cap. This should also be kept full of oil, as it lubricates the transmission

lessen the speed of the engine, which will, by the time these operations are completed, be considerable. The action in pressing upon the pedal causes the relief cam to operate on the exhaust valve and so relieves the compression while the engine is being started. If, when attempting to start, it is found that the compression

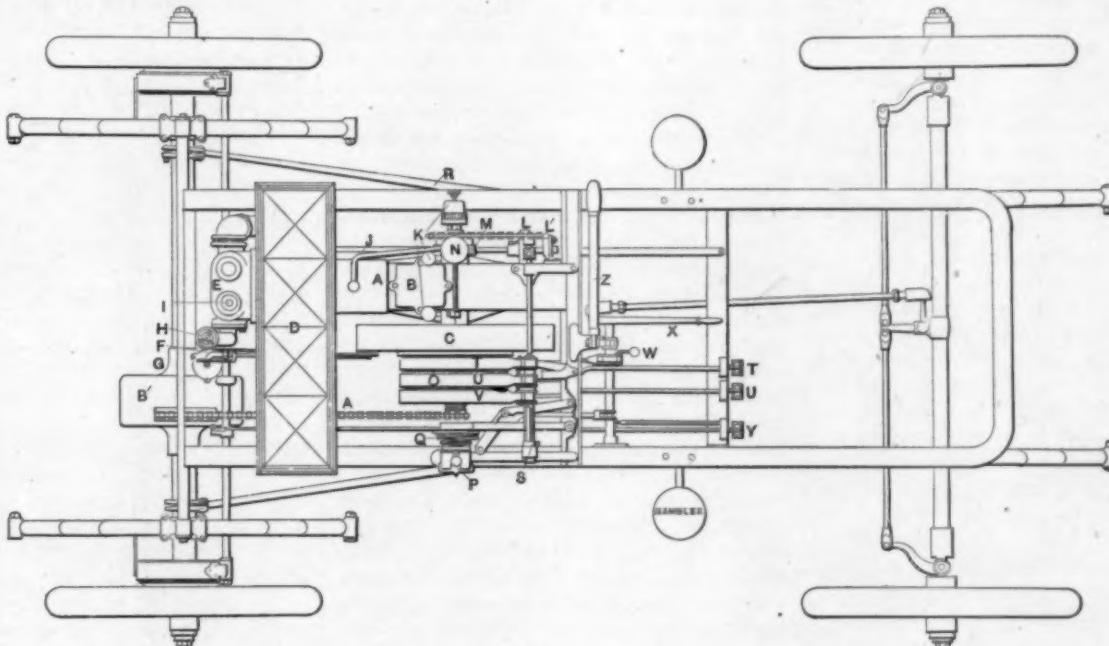
relief cam is not in operation, release the starting crank and allow the piston to partly reverse its movement, when upon again preparing to start, the relief valve will be found open. The throttle *H* should always be wide open when starting the carriage.

It is within the bounds of possibility that some smoke may issue from the muffler

however, it not cease, and the adjustment of the poppet valve spring not remedy it, then a tip with a smaller orifice should be inserted on the carburettor. In explanation of this, it might be stated that although our engines are all built exactly alike, it has been found that they will vary in the mixture required to produce the best work, and this is true, not only of our own engine,

toward the rear of the carriage, the transmission lever brought to the disconnected position between the high and the low speeds, and the brake applied.

Three pedals will be noticed on the footboard. The left pedal is the brake on the transmission, and should be used for ordinary stops; the center pedal is the reverse, and before applying which the



PLAN VIEW OF CHASSIS OF RAMBLER TOURING CAR.

A Engine.
A' Driving chain.
B Engine cover.
B' Differential case.
C Fly wheel.
D Water reservoir.
E Engine head.
F Carburetor.

G Carburetor flusher.
H Automatic air inlet.
I Sparking plug.
J Cam shaft.
K Grease cups.
L Governor.
L' Governor contact arm.

M Worm gears.
N Cylinder oiler.
O Transmission oiler.
P Transmission oiler.
Q Transmission spring.
R Radius rod.
S Transmission counter shaft.

T Transmission brake.
U Reverse pedal.
V Slow speed gear.
W Compression relief pedal.
X Transmission lever.
Y Emergency brake pedal.
Z Steering lever.

after the carriage has been standing. This can arise from two causes, one from a surplus of cylinder oil (generally caused by omitting to close the lubricating device *N* when the carriage is at rest), the other from excess of gasoline. The former is generally the case, and the smoke when from that cause is always of a light, bluish color; when it occurs the engine should be allowed to run until smoke no longer issues, the small pet cock on the underside of the crank case having been opened in the meantime, allowing the accumulated oil to escape. When from an excess of gasoline, the smoke is of a comparatively black color, and of a pungent odor, and should it continue after the engine has been running for a few minutes, it is evident that too much gasoline is being supplied for the amount of air admitted, and it may be overcome in two ways. It is possible the knurled screw *H* at the top of the dome of the carburettor may be screwed down too tightly, putting too much tension on the spring under the poppet valve. The engine should be allowed to run, and this adjustment varied until the engine attains its maximum speed, when, if from this cause, the smoke should cease. Should,

but of all others. It is seldom that this will be the cause of the smoke, since every carriage is carefully and thoroughly tested before leaving the factory. It may happen, however, that a difference in atmosphere due to altitude may be responsible, and in that case, no time should be lost in writing the factory for a smaller sized tip. Once properly adjusted, the carburettor should never be touched, nor the tension on the poppet valve altered.

When the engine has attained some speed, the operating lever *X* should be brought slowly back toward the seat. This action puts the transmission gears into engagement with the motor, causing the carriage to immediately start at the slow speed. After headway has been gained, the operating lever should be moved forward until it engages the high speed gear; this will be evident when the action of moving the lever forward meets with resistance, and the cone easily found to be engaged. This operation should be slowly done to avoid suddenly checking the speed of the motor and causing unnecessary strain on the crank shaft.

To stop the carriage, the throttle should be closed by turning the thumb lever

transmission lever should be in the disconnected position. The right-hand pedal applies the emergency brake on the drums attached to the rear wheels, and when fully applied, locks itself on the motor frame. This is for convenience when stopping the carriage on an incline. The brake is instantly released by pressing the stud on the footboard.

It is also well when the carriage is first put into use, to go over the adjusting bolts and nuts, since it is a fact that no machinery has ever yet been built so well that use will not cause its adjustable parts to "set home," and it will be found that a fraction of a turn can often be made on the adjusting nuts after the carriage has been used.

The batteries furnishing current for the spark will be found fastened in an iron case under the bonnet of the carriage and connected to the governor and induction coil by wires attached to the side of the body. These should be occasionally examined to see that all the connections are tight, and it is always well to carry an additional set of batteries in the event of one of them becoming exhausted while on a journey.

It should be remembered that the reverse

pedal must not be used while either the high or the low speed clutches are engaged, as it would entail unnecessary work on the engine and possible stripping of the gears.

POSSIBLE DIFFICULTIES.

If the engine refuses to work, it is proof that something is out of adjustment, and an examination should be made immediately. It is useless in such a case to continually turn the starting crank, for if the engine, after the starting crank has been revolved half a dozen times, refuses to start, it is evident that something is wrong.

A common source of trouble is the sparking plug, and this generally should be the first point for examination. The throttle of the machine should be closed, thereby breaking the electric circuit, the wire disconnected from the plug, and the plug unscrewed. The wire should then be re-connected to the plug, and the iron portion of the plug laid upon the water tank or some other metal portion of the engine. The throttle should then be opened, completing the electric circuit, and the engine slowly turned over by the starting crank until the buzzing of the vibrator at the induction coil evidences the fact that the primary circuit is complete, first having opened the relief cock on the under side of the cylinder. If the secondary circuit is also intact, there should be a spark at the end of the plug. Failing a spark, it will generally be found that the end of the porcelain is black or carbonized, which shows that an improper combustion has occurred, and that too much gasoline has been supplied. Clean the porcelain portion of the plug with a little gasoline and cotton waste; reinsert the plug in the cylinder head and attach the connecting wire, in the meantime breaking the circuit by closing the throttle. The engine should then start.

If, after cleaning the plug, no sparks ensue upon making another test, the porcelain should be examined, and if found to be injured, another plug should be inserted and the same test repeated. If then no spark appears between the points of the plug, assuming the latter to be perfect, it will show the trouble is elsewhere, and the connections of the secondary wire from the induction coil to the plug should be examined. If these are right, then evidently the wire is defective in its insulation, and a short circuit is probably set up in the engine proper. The remedy for this is a new piece of wire.

Should no buzzing sound occur at the induction coil, the vibrator should be examined, and a readjustment made by loosening the small blue set screws on the side of the bridge and tightening or loosening the knurled adjusting screw of the vibrator until the buzzing attains its maximum sound. The set screws should then be tightened, and another attempt made to start. If no buzzing occurs, the battery connections should be examined, and the batteries tested by an ammeter, and, if found weak, be replaced by a new set.

These are the ordinary causes for non-starting, and should the remedying of either of them still result in the engine refusing to work, the inlet and exhaust valves should be examined to determine whether they seat themselves properly. A little lubricating oil may be needed on their stems to facilitate their movement. The cylinder sight feed oil cup N should be examined, as it is possible that through failure to open the valve when running, the cylinder is dry and difficult to move. This will be evident by difficulty in rotating the starting handle, and in such an event the oil valve should be opened, and allowed to stand open for a few minutes until the oil has had time to flow around the piston.

It is also possible that some impurities in the lubricating oil, or water from the water jacket, may have lodged in the combustion chamber, and in such an event, the small brass cock under the cylinder head should be opened and the piston made to take a few strokes by the starting crank, allowing the foreign substance to be forced out. If the engine is running when this is tried, and steam appears when the relief cock is opened, it will be evident that the cylinder head packing needs compressing, which can be done by tightening the nuts holding the head of the cylinder. The engine should then be allowed to run for a few strokes with the relief valve open, to thoroughly cleanse the cylinder.

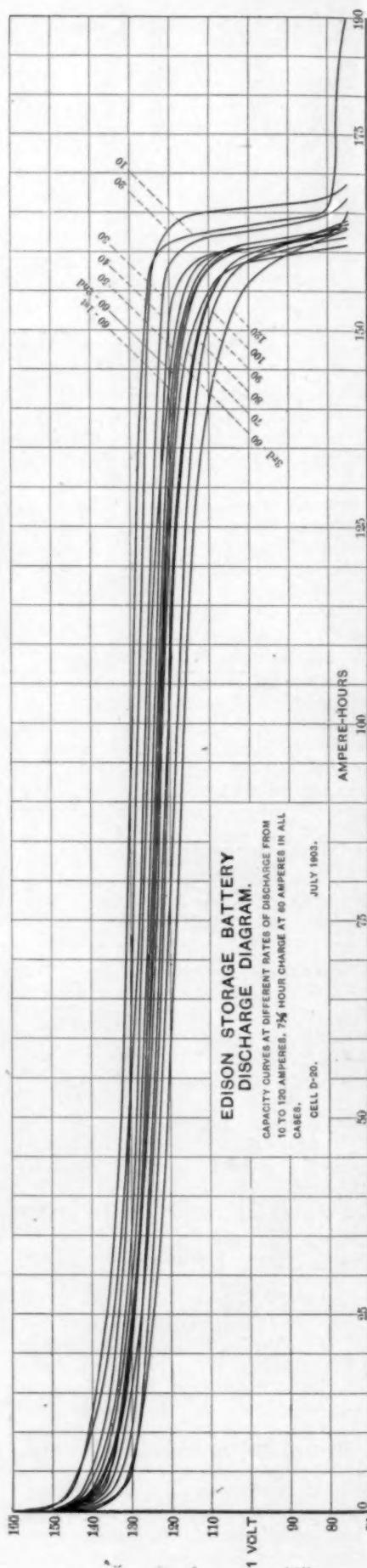
A Rush for Licenses in Washington.

Special Correspondence.

WASHINGTON, D. C., Aug. 17.—Washington motorists are busy taking out permits to operate automobiles, as provided for in the new regulations which go into effect on August 29. The first meeting of the automobile board created by the District Commissioners in May last was held early last week at the District building, and nearly 100 motorists presented themselves for examination. Another meeting was held later in the week, and this week meetings are to be held nightly until the day the regulations go into effect.

The examination, while not rigorous, is thorough. The candidates for permits are obliged to sign an application for examination and must give the trade name of the vehicle and type of motor, the maker's name and the number of the automobile. Certain questions are put to the applicants by the chairman of the board to determine their ability to operate the machines. The applications are then forwarded to the Commissioners, with a recommendation by the board either for or against the permit. If approved by the Commissioners, they will be so returned to the board, the chairman of which will countersign and forward them to the permit clerk for the necessary permit.

There has been a scramble for certain numbers to be attached to automobiles, and it is evident that the District Commissioners will have their hands full in settling this question.



The Edison Battery in Every-day Use.

So many absurd claims for the Edison battery have been published in the daily papers without any warrant in truth, that the automobile trade at least is inclined, unfortunately, to look askance upon any statement regarding the new battery. Therefore, it was with the object of giving the trade and the public something definite and tangible to base an estimate on, that the representative of THE AUTOMOBILE asked Mr. Edison, during the interview published in the issue for August 15, for some data showing exactly what the battery will do. He was thereupon referred to the Edison Storage Battery Company, of Glen Ridge, N. J.

The discharge diagram reproduced here-with was given him at the Glen Ridge plant, and for particulars as to the actual performance of the battery in every-day use, he was referred to C. H. Kay, superintendent of the automobile delivery department of B. Altman & Company, the large drygoods retailers in New York. The Altman company, he was told, was using an Edison nickel-iron battery in one of its delivery wagons, and the experience of the company with the battery, as given by an Altman employee, would be more satisfactory to the public than anything the manufacturers might say of it.

"About two months ago," said Mr. Kay, "we took one of our electric delivery wagons out to the Edison plant at Glen Ridge to have an Edison battery placed in it. We took out forty-four cells of lead battery weighing 1,260 pounds and put in an Edison battery weighing 1,220 pounds. Then we took the car out on the road and ran fifty and one-quarter miles before the battery gave out. It was raining and the roads were quite muddy. Three of us rode in the wagon and we had about 100 pounds of ballast on board to give the wagon altogether an average load. With the lead battery the best we could ever do was twenty-five miles.

"We brought the wagon back to the city and decided that we did not need so much mileage, so we took out part of the battery, leaving in thirty-six cells, which reduced the weight of the battery to 648 pounds. We took the wagon out with this battery, and, under ordinary traffic conditions and carrying an average load, we drove thirty-six and one-half miles before coming back into the stable, and had still a little power left.

"We have used this wagon every day since, running on an average about twenty-five and one-half miles a day. We have done nothing to the battery but fill the cells with water when it became necessary. It takes only about twenty minutes to fill the thirty-six cells of the Edison battery, while it required three-quarters of an hour to fill the forty-four cells of the lead battery. The Edison battery can be charged in a very short time, but we don't

find it necessary to make use of this advantage. The wagon with the Edison battery, during the two months the battery has been in, has needed no attention, so far as the battery is concerned."

Some Drastic Battery Tests.

In a brief editorial note, a recent issue of the *American Machinist* has this to say about the sort of labor by which the Edison storage battery has been developed:

"The writer of this lives near Edison's laboratory and is in a position to know something of what is going on there. We believe that very few inventions have been so thoroughly worked out and perfected before being offered to the public as has this one. Not only once but repeatedly, within the long term during which Edison has been working on this battery, his associates in the laboratory have been quite satisfied with it—have believed it to be practically perfect and have urged him to begin its manufacture for the market. But he has until now persistently declined—invented some new and apparently needlessly severe test for the battery, and in every case where any weakness whatever has developed even under extreme tests, not likely to be met with in practice, has gone to work again with inexhaustible patience and persistence to overcome such point of weakness. . . .

"Edison set out to remedy all these defects [of the lead cell.] His battery is considerably lighter for a given power—uses no lead; power can be taken from it rapidly without injury—it has been short circuited, and immediately afterward found in good working condition; it can be charged much faster—power for a forty-mile run for an ordinary car can be put into it in an hour without injury; it can stand idle indefinitely without deterioration; it uses no acid.

"These results have been attained by what we know to have been a very exceptional and thorough process of step-by-step invention in which expenditure of time and of money have been literally disregarded—disregarded to an extent not possible with most inventors.

"These batteries have been put into all sorts of standard electric vehicles and run—by men knowing absolutely nothing about them and only how to work the levers—over all sorts of roads, up hill and down, in all sorts of weather. A battery has been rigged up on a jack out in the yard of the laboratory so that whenever the power was running—about ten hours a day—it was continuously raised up and let fall upon some logs; this was kept up for months to study the effects of far more severe jolting than can be given to it in service. A battery, after having its more delicate electrical connections taken off, was thrown out of a third-story window of the laboratory and then with nothing

else done to it except put on the electrical connections, it was tested and found to be efficient. The men driving the experimental vehicles or, rather, the standard vehicles equipped with experimental batteries, were repeatedly given directions to start out and take every right-hand turn for seven turns regardless of the road or where it led to, and then home again. These men drove the vehicles every day for many months and purposely gave them the most severe possible tests. In short, we know whereof we affirm when we say that it will scarcely be possible for any user to give one of these batteries as severe a test as they have received."

Notes on Discharge Curve Diagram.

These curves are substantially similar to the ordinary discharge curves at constant volume, the height of the curve at any point representing the voltage at that point of the discharge. Instead, however, of making the horizontal distances represent simple time, they represent the product of time and current volume. This does not change their character, since the volume is constant for any one curve. Thus, the distance 100 represents a 10-hour discharge on the 10-ampere curve, and a 2-hour discharge on the 50-ampere curve. As the diagram shows, the voltage at that point is about 1.3 for the former and 1.25 for the latter. With these curves the area included between the curve and the line of zero voltage (not on the diagram) represents the watt-hour capacity of the cell at the given rate of discharge; and it is therefore possible to compare directly the efficiency of the cell at different rates of discharge. Thus the useful capacity at the 120-ampere rate is less than at the 10-ampere rate by the difference in the height of their corresponding curves above the line of zero voltage, or a little more than 10 per cent.

The three curves at 60 amperes represent respectively: (1) a discharge just before the 10-ampere discharge; (2) the one following in its order; and (3) the discharge just after the 120-ampere discharge

Always an Accidental Death.

"Newspapers say that the Scotch people are afraid to appear in their roadways for fear of speeding automobilists."

"Well, you can be certain that no motorist ever ran over a Scotchman if it was possible to avoid it."

"Why are you so sure of that?"

"Think of striking one of their hard heads with a front wheel!"

Automobile journalism on the Pacific Coast has now gained an independent foot-foothing. *Wheeling*, which conducted a motor vehicle department, having recently been succeeded by *Automobiling*, which is devoted exclusively to the motor car and motor cycles. *Automobiling* is an interesting little publication, full of coast news and other matters of interest.

Correspondence

Insulating the Secondary.

Editor THE AUTOMOBILE:

Sir:—The other day I was riding with a friend in a gasoline car with a single cylinder motor of high compression and considerable power. We had run a long distance—over a hundred miles—with a stop or a skip, when suddenly the impulses became intermittent, and a moment later the engine stopped. Investigation showed the apparent cause to be a short-circuited spark plug. A new plug was put in, and we proceeded after a twenty-minutes' stop. In a few minutes, however, the engine was again skipping, and a few miles on we decided to stop and hunt till we found the trouble. An ammeter test showed both sets of batteries to be nearly half spent, though they were new. Supposing that they were of poor quality, we connected them together in series, and then tested them for the spark. To our surprise, the spark was wholly insignificant—less than 1-16 inch, though the buzzer worked well. Clearly the secondary wires were grounded or short-circuited somewhere, and a little further searching disclosed a point where the wire from the coil to the plug had been cut and spliced. The splice had been taped with ordinary friction tape, and the wire lay at that point on a cross member of the main frame. Of course the current had gone right through the tape, or rather part of it had, the rest going through the plug, until the batteries, exhausted by this excessive drain, had failed to give current enough to supply both routes. We taped the splice heavily and fastened the wire so that it could not get near the frame, and got a half-inch spark from the plug terminal at once. The engine, too, showed the effect, being speedier on the level and more able on grades than before.

The incident showed very well what a difference there may be between two kinds of insulation. I have no doubt that the insulation on the plug wire could have resisted a potential sufficient to give a six-inch spark, whereas the tape broke down at once under a half-inch spark. The tape may have failed more easily because this engine, having a high compression, requires a high tension to produce the spark, and as a matter of fact, the battery strength in this vehicle is usually much in excess of actual requirements, necessitating particular care with the insulation. But whatever the battery may be, if the insulation of the secondary wire is once broken, it is practically useless to think of repairing it by tape or otherwise. It is best taped, of course, but the taped portion should be kept two or three inches away from all exposed metal work. It should also on no account be allowed to get wet.

E. W. T.

New York, August 15.

Yosemite Valley Auto Pioneers.

Editor THE AUTOMOBILE:

Sir:—On page 140 of the issue of THE AUTOMOBILE for August 8, I notice an article entitled "Yosemite Valley Entered by Automobile for the First Time." Mr.



OLIVER LIPPINCOTT AND PARTY AT GLACIER POINT.

Oliver Lippincott made the first trip into Yosemite Park three years ago in a Locomobile, as will doubtless be recalled, and interesting articles on this trip were



FIRST AUTO THROUGH BIG YOSEMITE VALLEY REDWOOD.

printed in several publications at the time. Mr. Lippincott not only ran his car into the valley by the Wawona Route but also climbed the steep grades, thereby reaching very high elevations. Naturally enough,

in taking the car out on Glacier Point, some manipulation was necessary in order to prevent accidents, but it was well worth the danger for the really magnificent photographs obtained. These were valuable for advertising purposes, and being widely circulated, did much to establish the steam car in popular favor on the Pacific Coast.

I also call attention to another trip made into the Yosemite Valley by a party of tourists from San Francisco, also using Locomobiles, Dr. W. A. Clark, Miles Baird, and others being in the party. They did not attempt any of the "stunts" accomplished by Mr. Lippincott, but took many pictures which illustrate in a very interesting manner Dr. Clark's narrative.

J. A. KINGMAN.

Bridgeport, Conn., Aug. 11.

THE ARCTIC CIRCLE CROSSED BY AUTO FOR THE FIRST TIME.

A telegram from Mr. and Mrs. Charles J. Glidden, of Lowell, Mass., the "Farthest North" automobile tourists, dated Hapawanda, Norway, was received in London on Sunday, August 16, stating that they had successfully entered the Arctic Circle at 2 o'clock on the afternoon of that day. This message announces the success of the original plan, for when the Gliddens left London on July 20 they stated that they would not return until they had crossed the Circle. Only a comparatively short distance ahead of them lay Beieren, the original destination of the trip. The party reached Gefle, a fortified seaport town of Sweden, on August 9, and from there pushed across Sweden and into Norway, traveling in a northwesterly direction to Trondhjem, where a halt was made, after which the journey was resumed in the same direction toward Hapawanda.

Writing to a Boston friend, Mrs. Glidden describes the early incidents of the journey, stating that the automobile was a strange sight in almost every village after Christiana was left behind, and all sorts of difficulties had to be met and overcome in a judicious manner in order to retain the good will of the village solons of Norway, who were frequently on the point of putting an end to the trip by denying the party the use of the roads. One of the most interesting districts traversed, Mrs. Glidden wrote, was that in the vicinity of Elsinore, the home of Hamlet, the Mad Prince of Denmark.

The members of the Massachusetts Automobile Club are much gratified at the success of the Glidden expedition, recalling the farewell meeting on the eve of the departure, when the tourists were presented with a flag bearing the colors of the club, which Mr. Glidden promised to leave at the most northern point that he might reach, to be carried still further toward the Pole by the first automobile tourist to push forward from there.

The return journey of the Gliddens is to be made via Christiania, Stockholm, Copenhagen and Hamburg to London.

TRANSCONTINENTALISTS APPROACHING EASTERN SEABOARD.

Messrs. Fetch and Krarup, the transcontinental automobile tourists, who reached Chicago on Monday, August 10, again resumed their long journey at 10 o'clock on the following morning, arriving in the evening at South Bend, Indiana, 155 miles nearer New York, after a creditable day's trip of only six hours' running time. The roads were found to be in excellent condition, and the tourists thoroughly enjoyed the pleasure of traveling through a civilized country and over good roads after their experiences in the far West.

South Bend was left at 10 o'clock on the morning of August 12, and the evening of that day found the tourists in Bryan, Ohio, the last stop in the Hoosier State having been made at Goshen, for dinner, shortly after noon. The roads from South Bend to Bryan were mostly good, although sandy and with some hills. At 8 o'clock on the following morning Bryan was left behind, and Norwalk was reached at 4.30 o'clock in the afternoon. Arrival at Cleveland the next day at 1.30 o'clock, ended Friday's run.

When the party turned into Bond Street, and pulled up in front of the Hollenden, it attracted wide attention. The tourists were dressed in oilcloth suits, which bore evidence of much wear, and the automobile was thickly plastered with the yellow mud of the plains. To a group of newspaper men Messrs. Fetch and Krarup related the leading features of their long journey, and then entered the hotel to thoroughly enjoy a hearty meal.

The trip eastward was resumed on Saturday, August 15.

Sunday night they were in Fredonia, N. Y., and Monday night in Batavia. They expected to arrive in New York City on Friday.

Much night driving has been done since leaving Cleveland.

A TOUR FROM FITCHBURG, MASS., TO NEW YORK.

Special Correspondence.

FITCHBURG, Mass., Aug. 15.—Harlan K. Simonds, a member of the Wachusett Automobile Club, of Fitchburg, recently made a pleasant automobile trip to New York City with a friend.

Leaving Fitchburg on a clear, cool morning they departed on the long jaunt over hills and some good roads and some very poor ones. The run for the forenoon was to Greenfield, Mass., a distance of about sixty-eight miles. Here they stopped for dinner and found very good accommodations at the Mansion House.

After carefully looking over the Long Distance touring car and making a few adjustments, they started on the way to North Hampton, where the first night was spent. So far the roads were very fair with an occasional poor section for a short distance. Arising bright and early the

second morning, they ran down to Springfield before breakfast—a distance of only a few miles—and on through Huntington, thence to Worthington Centre.

Near this place was encountered the famous Peru Hill, of which so much had been heard as the place of defeat for many cars with higher power than their own. At last the climb began. The motor worked beautifully, and the water in the radiator also boiled beautifully before they had gone very far up the hill. Part way up they overtook a four-cylinder touring car laboring up the hill with the driver riding and the other three occupants walking along at the side. At the top Mr. Simonds stopped to look the machine over and had a friendly chat with a farmer who lived in a near-by house who said that it was no unusual thing for him to tow four to five cars up the hill in a week.

At last, after encountering some very bad roads, they arrived in Pittsfield, which ended their run for that day. They next day made a short run to Great Barrington,

SECOND SURVEY OF COURSE OF ENDURANCE RUN IS BEGUN.

A second survey of a route for the fall endurance contest from New York to Cleveland and Pittsburg was begun by Secretary Harry Unwin, of the National Association of Automobile Manufacturers, early on the morning of Tuesday, August 18. On his initial survey, Mr. Unwin went no farther than Cleveland, but this time he proposes to push through to Pittsburg. He will make a careful study of the final stage from Cleveland to Pittsburg, observing particularly the road conditions, hotel accommodations and garage facilities.

Instead of following up the east bank of the Hudson River to Rhinebeck, according to the first intention, it is more than likely that the accepted route will follow the west bank of the river to Kingston, where the original course will be resumed. With the object of proving the advantage of this plan, Mr. Unwin started on his second trip by way of the Forty-Second Street Ferry to



HARRY UNWIN AND WILLIAM ARBER STARTING OVER ENDURANCE COURSE.

over very fair roads. The only accident was the breaking off of a platinum point on the spark plug, and a new one was soon put in. They stopped for a few days at Great Barrington and then drove on to Bridgeport, a run of about ninety miles. Just before arriving in Bridgeport they noticed the engine was pounding some, and upon investigation discovered that there was a break in the water pipe and the motor was dry. After repairing this with tire tape they continued.

The last day's run was to New York City over fine roads and many cars were passed on the road. Arriving at the end of their journey, they "did the town" for a few days and then returned by boat to Fall River.

Weehawken, N. J., and from there up the west shore road to Kingston. He will proceed to Pittsburg, via Buffalo and Cleveland, at about the expected rate of travel of the competing cars. Careful and final arrangements are to be made for hotel accommodations, while garages for the machines will be engaged, and adequate gasoline supplies along the route assured.

Mr. Unwin is accompanied on his trip by Mr. Wheeler, a New York surveyor, who has had considerable experience in automobile work, and Mr. Arber, inspector of the Searchmont Automobile Company's factory, the offer of the Searchmont Company to place one of its standard 12-horse-power gasoline touring cars at the disposal of the N. A. A. M. having been accepted.

THE AUTOMOBILE

VOL. IX.

NO. 8

Published Every Saturday
byTHE CLASS JOURNAL CO.,
Flatiron Building, Madison Square,
NEW YORK CITY.Cable Address - - - Autoland, New York
Long Distance Telephone - 300 18th St., N. Y. City

SUBSCRIPTION RATES:

United States, Canada and Mexico, One Year, \$2.00
Other Countries in Postal Union, - One Year, \$3.00To Subscribers—Do not send money by ordinary mail.
Remit by Draft, Post-Office or Express Money Order,
or Register your letter.

FOREIGN SUBSCRIPTION AGENTS:

ENGLAND:—Iliffe & Sons, Limited, 3 St. Bride Street,
Ludgate Circus, London E. C.FRANCE:—Boysseau & Chevillet, 22 Rue de la Banque,
Paris.

GERMANY:—A. Seydel, Mohrenstrasse 9, Berlin.

To Advertisers—Copy or changes in orders for advertisements for the issue of the week following should reach us not later than Saturday.

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Entered at New York, N. Y., as second-class matter.

The Automobile is a consolidation of The Automobile (monthly) and the Motor Review (weekly).

SATURDAY, AUGUST 22, 1903.

A DISCREDITABLE LAW.

It is a great pity that so good a beginning as the Government Motor Car Bill in England had, in the wise and reasonable form in which it was introduced, should end so miserably as it has. Although the speed limit has been raised to twenty miles, this is still barely an ordinary traveling pace, and the motorist will, therefore, continue to be exposed to police traps, into which he will fall nearly as readily as before. The meagre advantage of not being obliged to drive at a virtually impossible pace, where a policeman is liable to be met, is heavily paid for in the vindictive penalties imposed for mere speed regardless of its propriety.

One result which may follow from this discreditable piece of legislation, if, as in the present temper of the anti-motor British public seems likely, it is enforced to the letter, can hardly have been anticipated by its sponsors. If one is liable to be fined one-third the value of his car whenever he ventures to use his high gear or open his throttle, how can the ordinary middle-class citizen, to whom his run-about is chiefly valuable as being cheaper and more convenient than a horse, afford to own an automobile? Motoring will become in fact, what its enemies like to say that it now is, the exclusive sport of the

rich; and the deplorable class prejudice connected with it, which was just beginning to die out, will be fanned into full blaze once more.

It is probably true that any change from the late intolerable conditions is better than no change at all. At least, the trial of many measures will enlighten the public somewhat. But the situation is evidently one that can be bettered only by the use of the utmost tact and discretion on both sides. So long as motorists and non-motorists are two warring classes, it will grow steadily worse. The former have good reason to feel aggrieved, but for the present their best hope would seem to lie in moderation, not in fighting.

INTERPRETING THE RULES.

Probably no one ever drew up a set of rules governing so elaborate an event as the coming N. A. A. M. Endurance Run without leaving a few loopholes which had later to be found and closed; and the comments in this page last week were intended rather to direct attention to some of the loopholes, with a view to getting the rules interpreted at the outset, than to suggest that the committee which drafted them had left its work half done. We are, therefore, gratified to receive from the Association a statement saying that the rules will not be interpreted to mean that observers may return to garages after their operators have left, or that an operator or mechanic will be allowed to render mechanical assistance to another vehicle in case of accident. The rule regarding replacement of inner tubes is intended to require that punctured tubes shall be continued in service, by repairing them either on the road or at controls, as long as possible, and charged to expense only if damaged beyond repair.

A confusion in the numbers by which the rules were referred to in the above-mentioned editorial was caused by the fact that the rules were rearranged and renumbered between the issuing of their first version, on which the editorial was based, and their final form as printed. "Rules 4, 16, and 17" should read 7, 9, and 13; rule 21 should be rule 16; and rule 22 should be rule 18. Rule 39, which appears to have been a late addition, obviously covers the point regarding repairs made while in motion.

It would do no harm, and it might do a lot of good, if guards of some sort were provided to prevent vehicles that failed to stop, after backing in the hill-climbing test at Pittsburg, from continuing backward to the bottom of the hill. In the Sun Rising tests reported in these pages last week, ropes were laid across the road, and run through pulleys attached to adjacent trees, so that they could be drawn taut after a car had passed them going upward. The same trick might work well here.

THE NEWBURG ROUTE.

When one considers the benefits accruing to the touring public, it is rather fortunate that the initial portion of the proposed Endurance Run route will follow the west instead of the east bank of the Hudson River. The east bank route is well known, if not favorably, since the Rochester run of two years ago. Beyond Tarrytown it has little or nothing but its undoubted picturesqueness to recommend it. Though not downright bad, except in bad weather or just after they have been "repaired," the roads are mere dirt, sand, and stones, in nearly their natural state except in a few places, such as Garrison, where an enterprising and public-spirited path-master has undertaken to show what can be done to keep even a dirt road in usable condition. The west route, via 42nd Street ferry, Bull's ferry road, Hackensack, Ridgewood, Tuxedo Park, and Vail's Gate to Newburg, is as good as the east route and less hilly, besides being shorter and more convenient for the great number of motorists who live in New Jersey. At Kingston one can cross, if he wishes, by ferry to Rhinebeck and take up the east route to Albany from that point. In bringing this route to general notice the Run Committee will perform a public service not less valuable for being quite incidental to its purpose.

ADVANTAGEOUS "COMPLEXITY."

One point that is seldom raised in academic discussions of the relative merits of single and double-cylinder motors, but which is very real and tangible to their owners, is that the multi-cylinder motor will run when one cylinder is disabled, and therefore will "crank" the disabled cylinder if necessary while adjustments are being made. The single-cylinder motor, on the contrary, must be turned by hand, and the benefit of an approximation to its working speed is thereby lost. Consequently much more time must sometimes be taken to get the correct adjustment, to say nothing of the muscular effort and perspiration involved.

This advantage, of course, is most important when the motor has more than one carburetor, since this is the organ most often demanding adjustment at normal piston speed, and whose adjustment must be most nearly perfect to enable the motor to run at all. Although multiplication of carburetors naturally means multiplication of the chances for maladjustment, this is really a small item when one considers that with a machine so equipped, futile cranking by hand may be almost an unknown occurrence.

A TRANSCONTINENTAL RACE.

Doctor H. Nelson Jackson, who has just succeeded in the feat of piloting his touring car across the continent, is quoted as declaring that the next thing on the cards ought to be a transcontinental race

with each contestant choosing his own route, and a cash prize of \$30,000 awaiting the winner. The doctor admits that the cost would be simply fabulous, and that he himself would be obliged to take the role of an onlooker simply: but he declares that such an event would assist the industry prodigiously. Quite probably it would, at least to the extent of 95 per cent. of the machines that started. For the present, however, we are going to keep our enthusiasm over the scheme carefully within bounds. There are much cheaper ways, and quite as effective, of spoiling automobiles; and what the public wants is not phenomenal machines but serviceable ones at the lowest consistent price.

MADISON SQUARE SHOW PROSPECTUS OUT AUGUST 29th.

A complete prospectus of the forthcoming automobile show, to be held in the Madison Square building, New York, from January 16 to 23, 1904, is to be mailed August 29, and allotments of space will be made and announced September 16 next. Applications for space have been received at frequent intervals for months past, but no advantage can be given the early applicants over those sending in requisitions subsequent to August 29.

N. Y. POLICE ORDER TO FOLLOW THE BAILEY LAW DECISION.

Replying to a letter from Charles Thaddeus Terry, counsel of the National Association of Automobile Manufacturers, Commissioner Greene, of the City of New York, wrote to the following effect:

"Your letter of August 13th is received, calling attention to the decision of the Court of Special Sessions in the McWilliams case in which that court held that certain provisions of the Bailey act are unconstitutional. I have been in correspondence with the Corporation Counsel in the matter, and he advises me that this decision is binding upon the Police Department until reversed by higher judicial authority. Instructions to make no arrests under these provisions will be immediately issued to the police force."

Automobile Ambulance for Minneapolis.

Special Correspondence.

MINNEAPOLIS, Aug. 17.—The local Board of Charities and Corrections will use an automobile for emergency calls. The city hospital is under the direction of this board, and during the past year there has been much complaint about the service. The police patrol wagons respond to accident cases, and much time is frequently lost. At the last meeting of the board, when the estimate for next year's expenses was considered, the automobile item was included. It is the plan to leave the auto in charge of the police department.

Twin Racing Cars Completed and Tried.

Special Correspondence.

INDIANAPOLIS, Aug. 17.—Lying within twenty feet of each other at the shops of the Mohawk Cycle Company here are the new twin racing automobiles of Carl Fisher, the Indianapolis racer, and Earl Kiser, the Dayton, O., chauffeur. They are already mechanically complete, and the workmen have laid aside their tools to give the painters a chance.

These machines are touted to be wonders in the racing world, and initial tests of Carl Fisher's machine made on the Riverside Park Boulevard here and at the Fair Grounds Driving Park, tend to bear out the claims made for them. The Fisher machine was put together for these tests unpainted and unvarnished. It was given its first real test for speed last Thursday evening. At the previous test on the Riverside Boulevard no attempt was made to time it, as that trial was merely to prove its engines in smooth and speedy working order.

Wednesday night at the Fair Grounds, however, the machine went against time, not to do its fastest, for it is believed that there is no track in the United States where the Fisher and Kiser autos can safely be allowed to go at their full speed of the 1,000 revolutions a minute that their 90-horsepower engines are capable of developing. Only 600 revolutions a minute were attempted. The big car was timed and registered 1:21 for the mile on the track.

Another trial is scheduled for Saturday morning of this week, at which Mr. Fisher plans to make the mile under 1:10.

Gradually, at succeeding tests as he gets used to handling the auto and finds himself in perfect control of it, he will increase the speed until finally, he expects he will achieve better than world's record time. He feels that he has the fastest automobile in the country.

The second test was made in the presence of Charles Backus and Charles Sommers, of the Mohawk Cycle Company, which manufactured the Fisher and Kiser cars, and of half a dozen mechanics from the factory. The test proved that a change in the exhaust was necessary. At the time of the test the exhaust pointed toward the ground and was muffled. Such was the force of the exhaust, however, that the muffler was blown off and wrecked and the ground was torn up in a tremendous cloud of dirt as the big racer circled the track.

So it was decided to turn the exhaust backward instead of downward and leave it unmuffled.

Mr. Fisher and the builders of the machines returned from the tests enthusiastic and Mr. Fisher announced that the machine will be entered in all the important automobile race meets, beginning with the one at Cleveland, September 4 and 5,

then in the races at Detroit September 7 and 8, and in the later meets in October. He will go against the best in the country, and is even considering a trip abroad with his racer. His brother, Earl Fisher, who is as good an automobilist as himself, will do as much of the racing in the new machine as will Carl Fisher.

"The new auto is a beauty," says Carl Fisher, enthusiastically, "just as perfect in its parts as a watch of the finest kind."

"It will be impossible to let this machine out to its highest speed for a full mile on any of the places now provided for auto racing in this country," said H. B. Hewitt, of the Mohawk Company, as he pointed to the new racer. "It can make a hundred miles an hour, and there's no straight-away course on which even the most daring racer would attempt to run at that speed.

"This machine and its twin, which will both be completed in every particular within two or three weeks, are the most perfect and largest racing automobiles ever constructed in this country. They weigh about 3,000 pounds each and are complete automobiles. I mean by that that they are not like the racers constructed for Oldfield and Cooper. Those are built for racing and nothing else. They cannot be used for road work because they can go only at full speed.

"The Fisher and Kiser automobiles are constructed both for racing and road work. They are fitted with gears that permit them to be driven as slow as is desirable for ordinary travel. But when racing speed is wanted these gears are out of engagement altogether. That is accomplished by means of a pair of circular friction plates which make the wheels directly driven by the engine, without any intervening gears. In that way the wheels make as many revolutions as the engine, which can attain 1,000 revolutions a minute.

"But that's a greater speed than any racer would care, or dare, to make. Given the proper track, it would be no trick at all with these machines to make a mile considerably under a minute.

"The special feature of these automobiles is their engine. It is a forward horizontal engine of the four-cylinder opposed type. This engine is so constructed that there is no vibration. You can set a glass of water on top of it while it is in action and not a drop will be spilled. The machines are constructed along entirely original lines and are long and low, the mechanism clearing the ground by only about six inches."

The license records show 174 automobiles in Indianapolis. Of these, 85 are gasoline machines, 85 electric, and 4 steam. Electric automobiles find as much favor in Indianapolis as do the gasoline cars on account of the streets being level everywhere.

CLUBLAND

SPRINGFIELD CLUB'S FIRST ANNUAL CLAMBAKE A SUCCESS.

Special Correspondence.

SPRINGFIELD, Mass., Aug. 15.—The first annual clam bake of the Automobile Club of Springfield was held last Tuesday afternoon, and was a pronounced success. The event took place in Gosselin's Grove on the bank of the Agawam River, in West Springfield. The ready response of the members is regarded as highly encouraging for the success of outings of a similar nature in the future. Notwithstanding that many of the club members are out of town on vacations, about 120 members and guests were present. Among the invited guests were Mayor Everett E. Stone and City Marshall and Mrs. George M. Stebbins, with lady friends.

Before the opening of the bake at 5 o'clock there were some impromptu sports, including baseball, shot-putting and a tug-of-war between teams captained by Pres. H. C. Medcraft and Sec. B. J. Griffin, Mayor Stone holding the watch and declaring the result a tie. There was dancing also both before and after the feast. The delightful informality of the entire affair was one of its pleasantest features, affording opportunity for the members and their wives to become better acquainted.

About thirty automobiles were grouped about the entrance of the grove. The picnic grounds were about seventy-five feet below the street level and the descent was not only steep but winding and slippery. Only two cars attempted the descent. These were the Knox machines of Dr. F. G. Finch and F. G. Farr, superintendent of the Knox works in this city. They also successfully climbed the same grade in making their exit from the grove.

It is conceded that the success of the bake was due mainly to the efforts of Drs. Finch and H. C. Martin, of the committee in charge. The other members of the committee were B. J. Griffin, chairman; Dr. H. C. Medcraft, C. E. A. Cameron, A. A. Geisel, Harry Daniel and F. S. Carr. It is expected that the next annual event of the kind will be held in the club's own private grounds and club houses.

Columbus Race Meet August 28 and 29.

Special Correspondence.

COLUMBUS, O., Aug. 17.—The Columbus Automobile Club announced its intention some time ago to hold an automobile race meet this fall, but a difficulty arose when the Driving Park Association, the owner of the only suitable track, refused to let the track to the club on satisfactory terms, stating that it was going to promote a race meet of its own. After repeated meetings of representatives of the two organizations, satisfactory arrangements were finally

made, and the Columbus Automobile Club now announces that it will hold a meet on August 28 and 29. President Taylor, of the club, states that he has received a number of letters from prominent racing men to the effect that they would bring their fastest cars if the meet could be arranged, and now that the dates have been decided, and the meet sanctioned by the American Automobile Association, interest in it has become keen among local automobile enthusiasts. The program has not been issued as yet, but it is understood that the events will include contests for local aspirants to racing honors, as well as matches for professional drivers, who will use very fast cars of high power.

Bridgeport Parade August 31.

Special Correspondence.

BRIDGEPORT, Conn., Aug. 17.—Sixty-five members of the Automobile Club of Bridgeport will take part in the automobile parade to be held here Monday, August 31, at 10 A. M., as the initial event of the Old Home Week celebration.

The committee, of which A. L. Riker is chairman, cordially invites all automobileists to participate. It is specially desired to have a large out-of-town delegation, and favorable responses from individual motorists in various parts of the state have been received. The local club will keep open house and every facility will be afforded visitors. All the members of the Automobile Club of America have been asked to meet at Bridgeport on that date and take part in the parade.

A committee was appointed at the last meeting of the Automobile Club of Bridgeport to arrange for an automobile race meet at Seaside Park after the parade.

Buffalo Club's Second Trip.

Special Correspondence.

BUFFALO, Aug. 17.—The second run of the Automobile Club of Buffalo to Depew, N. Y., last Saturday afternoon was a decided success. About half a hundred owners participated, accompanied by about twice as many friends. It was an ideal day and long before 2:30 o'clock, the hour appointed for assembling, automobileists began to appear at the rendezvous. They backed up in front of the City Hall and lined up under the direction of Secretary Wagner, of the Automobile Club, J. B. Eccleston and F. Worthington. The procession threaded the principal streets and parks of the city and made a stop at Humboldt Park, just inside the city line, where those who took part in the run prepared for the country roads. Then the order was given to "Go as you please," and as a general thing most of the drivers pleased to go at a good clip and stirred up the dust on the way.

On the narrow main road from Bowmansville to Depew, at a point where it turned abruptly at a right angle, John B. McNeill ran his touring car into a deep ditch and

the occupants, with the exception of Mr. McNeill, were thrown out. At the time the accident occurred Mr. McNeill was following close in the dusty wake of Nicholas Mock's big car, and did not see the turn until too late for the brakes to stop the machine. No one was badly hurt but the automobile suffered sufficient injury to spend the night in a farm-yard.

Most of the drivers had chosen another road. They arrived in Depew in good season and had a dinner at the Depew Inn. The tables were decorated with the automobile club colors, and the general effect was pleasing. The return was made at dusk.

A masquerade automobile parade is the latest novelty proposed in the automobile line. It is planned to have the event take place on the next run of the Automobile Club of Buffalo, which will be to Niagara Falls at an early date. Speaking of the plan, Dr. Truman J. Martin, to whom belongs the credit of the suggestion, says:

"The idea is to leave details of costume and decorations of the machine to the ingenuity of the owners. There will be a parade to a certain point in Buffalo, and then the run will be a go-as-you-please affair to Echota, where all the machines will assemble and parade again to and in Niagara Falls. Secretary Wagner, of the Club, has taken hold of the plan in earnest, and further information will soon be given out. I have no doubt there will be from sixty to 100 machines in line, and there will be plenty of fun."

Plans for Providence Races.

Elaborate preparations are being made by the committee of arrangements of the Rhode Island Automobile Club for its race-meet, which is to be held in Providence on September 19. A sanction for this has been granted by the American Automobile Association, whose rules will govern the events, and substantial prizes are to be offered. Although it has not been definitely announced, it is known that the entry list will include many of America's fastest vehicles, as well as an attractive representation of foreign racing cars. Special events are to include match races and speed trials against time.

A. C. A. Run to Boston.

Secretary Butler, of the A. C. A., states that while the proposed fall club run to Boston is not an assured event, it is more than likely that members will be afforded an opportunity to enjoy a "go-as-you-please" jaunt to the Hub, either early in October or late in that month. Many favorable letters have been received from members in reply to Secretary Butler's circular letters suggesting the run, which were sent out some time ago, and it now seems assured that forty-five or fifty cars will participate in the trip, which will occupy the better part of a week.

INDUSTRIAL

SELDEN PATENT LICENSE QUESTION STIRS CLEVELAND MAKERS.

Special Correspondence.

CLEVELAND, Aug. 17.—The Selden patent and the action of the Association of Licensed Automobile Manufacturers continues to be the chief topic of conversation among local manufacturers. Few positive statements are obtainable, but there are rumors galore. There is a great deal of talk that an association is to be formed among the outside manufacturers to fight the patent. And it is known that at least three representatives of as many different concerns have been calling on the local "outsiders" with a view to forming such an association. Several manufacturers interviewed by the writer intimated that they thought such a move might be productive of good results, but they were unwilling to state that they had joined or agreed to join such an association.

There is talk that a certain large western manufacturer has announced that he proposes to fight the patent on his own account without assistance from others. It is also stated that a certain firm of Chicago patent attorneys which has been prominently identified for a number of years with both the bicycle and automobile trades has submitted propositions to automobile manufacturers agreeing to defend them and guaranteeing to win any suits brought against them, on a basis of payment similar to, but smaller than, that demanded by the Licensed Association.

Each of the outsiders, when asked, denies that he has been refused a license by the association, but in discussing the affairs of other makers, there is no hesitancy about declaring that such and such a manufacturer has been denied a license. One manufacturer said by his competitors to have been refused a license, said a verbal agreement had been made with an officer of the association and that within a very few days his name would be announced as among the licensed manufacturers.

It is understood that the association is serving notices on manufacturers of automobile material and dealers in automobiles. One manufacturer of a certain article entering into the make-up of gasoline machines, informed the writer that he had been warned to take out a license to manufacture this article or else to cease making it, and that up to the present time he had not decided what course to take. He stated that the cost of the license and royalty did not amount to a great deal, but that the difficulty was that the taking out of a license carried with it the agreement to sell only to licensed manufacturers. In view of the fact that nearly all of the licensed manufacturers are the larger concerns and manufacture their own parts among them the article made by himself, he sees no advantage in joining the A. L. A. M.

There is talk, too, that the licensed manufacturers are purposing to place their goods only in the hands of agents who will agree to handle the machines of the "inside" manufacturers exclusively.

Peerless King of Belgians Tonneau.

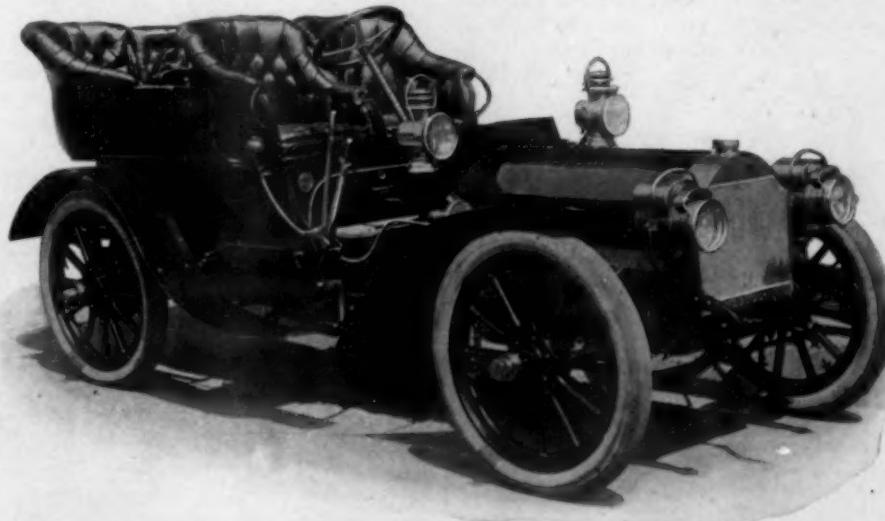
A particularly striking gasoline touring car, which is more than ordinarily luxurious in its appointments, is shown in the accompanying illustration. An unusually long wheelbase (96 inches) and a most attractive body of the King of the Belgians type, together with a long and well-proportioned motor bonnet, are distinguishing features. The tread is 56 inches; the wheels are each 34 inches in diameter, and shod with 4-inch double tube clincher tires.

The 20-horsepower motor is of four-cylinder type. The cylinders are cast separately and bolted to an aluminum crankcase. Control is effected by means of a throttle-governing device of new design,

Manhattan agents for the Peerless Company, at 141-143 West Thirty-eighth Street.

Remodeling Brooklyn Church for a Garage.

An old brick church that has stood for many years as a landmark in Brooklyn, at the corner of Jefferson Avenue and Ormond Place, has undergone a strange transformation during the past month and has emerged as a fully-equipped modern automobile garage. The picturesque exterior of the edifice, which was erected in 1843, and was known for years as the Central Congregational Church, has not been altered, but the interior has been remodeled to adapt it to the requirements of the automobile business on a large scale. This work has been done at the instance of the Ormond Automobile Company, which has leased the old church for a term of years and expects to throw it open to its new service immediately. The building



PEERLESS 20-H.P. FOUR-CYLINDER CAR, WITH KING OF BELGIANS BODY.

and the usual Peerless spark adjustment. The adoption of a circulating system of Mercedes type is a novelty for American-built cars. The water tank is combined in the honey-comb radiator, and a large flywheel fan draws air through the radiator, and past the motor cylinders, discharging it at the back. In order to assure good draft the motor bonnet is made practically airtight; in fact, it might be described as a square tube. The Mercedes system of lubrication has also been adopted, a small tube being tapped into the exhaust pipe and connected with the lubricator. When the motor is running a slight pressure is exerted on the lubricant which forces it to the bearings.

The transmission of this new car is of sliding-gear type, permitting three forward speeds and one reverse. Drive is by a longitudinal propeller shaft and bevel gears to the rear axle.

This new car is the latest product of the Peerless Motor Car Company, of Cleveland. The first one to reach New York is being exhibited by the Banker Bros. Company,

has a floor space of fully 8,000 square feet, sufficient to accommodate about 150 motor cars, and the location is particularly suitable for an automobile garage. The main entrance is located on the Ormond Place side, and the entrance to the company's office and reception room is at the corner of Jefferson Avenue. A woman's reception room, not yet entirely fitted up, is to be provided, and twenty-five private lockers will be at the disposal of the women. The men patrons of the garage will be well provided with conveniences and will have 100 lockers reserved for their use.

A complete electric charging plant is being installed, with facilities for charging six batteries at one time. The building is to be brilliantly lighted and a large electric sign at the top of the belfry will aid motorists to locate the building at night.

The incorporators of the Ormond Automobile Company, all of Brooklyn, have elected the following officers: President, Wilfred Burr; secretary, H. A. Lyons; treasurer, R. W. Haff.

News and Trade Miscellany.

A new safety can for storing gasoline is being placed on the market by Frank E. Pitts Mfg. and Supply Company, Boston, Mass.

Marietta, Ohio, will introduce a series of automobile races as a feature of the annual county fair, which will be held September 1, 2, 3 and 4.

The renting of electric runabouts at Newport seems to be proving profitable. The runabouts rent for \$50 a week and all contracts are signed for three months each.

Angier and Whitney, 45 Columbus Avenue, Boston, have been appointed New England agents for Continental tires, and will carry in stock also a full line of automobile supplies for retail.

The New York Coach and Auto Lamp Company, 302 W. 53rd Street, New York, carriage lamp builders, have entered the automobile field and are now showing several styles and sizes in gas and oil lamps.

Col. J. J. Astor has arrived in Newport, R. I., for the season with eleven automobiles, both foreign and domestic. His ten-year-old son is frequently seen at the wheel of one of the Alder machines, attended by his tutor.

Bates Bros., of 145 Columbus Avenue, Boston, have gone out of business. The Thomas and St. Louis gasoline cars formerly handled by this firm will hereafter be represented in New England by Angier and Whitney, 45 Columbus Avenue.

One of the fads of the hour at Newport is to drive out to Alfred Vanderbilt's farm in Portsmouth in automobiles and follow the fox hunts along the winding roads from Portsmouth to Newport, a distance of seven miles. No less than thirty fast machines attended the recent Saturday hunt. Among the prominent automobileists were Pembroke Jones in a Renault, Robert Graves in a Panhard, Col. J. J. Astor and J. F. D. Lanier in Mercedes-Simplex cars, O. H. P. Belmont in his new Mors limousine car, Mrs. and Mrs. Peter Martin and Capt. Ludig in Renault cars.

The Standard Automobile Company, of Pittsburgh, as the reorganized Seely Manufacturing Company is called, has taken over the agency privileges and the stock of automobiles belonging to the old concern and will continue the business, retaining the repository formerly occupied by D. N. Seely, who retired from the company on August 1. The officers of the new company are as follows: President, W. N. Murray; secretary, and treasurer, R. R. Gordon. A board of directors has been elected, of which F. C. Perkins, E. H. Belden, Robert Pitcairn, Jr., and R. S. Robb are members.

Miss Alice Roosevelt, while visiting in Newport, is said to have shown her skill in handling the wheel of Mr. Cutting's new Seachmont touring car.

Schuyler S. Olds, trading as the National Capital Automobile Company, has given a bill of sale of the chattels of the company at 1120 Eighteenth street, N. W., Washington, D. C., to the National Capital Automobile Company, incorporated. The consideration was \$1.

George G. Reed, of the Underhill & Reed Company, Boston, in company with A. M. A. Keith, will sail this week for a seven-weeks' tour through Germany, Switzerland, France, and England in a Knox machine. This will mark the introduction of the American air-cooled car on the other side.

The Road Car Company, London's leading public transportation company, has been making some exhaustive experiments recently with a large automobile bus of new design, and the results have been so satisfactory that an order for ten additional busses has just been placed with a concern at Bielefeld, Prussia. If these are as successful as the first one, which is now in use, all the lines of the company will be similarly equipped.

The Library of Congress at Washington is provided with a large electric automobile delivery wagon, which is the property of the United States Government. Notwithstanding this fact, it has been decided that the vehicle, as well as the several automobiles in use by the Signal Corps at Fort Meyer, Va., must be registered and numbered, and their operators provided with licenses, as would be required if the vehicles were owned privately.

The McKaig Friction Drive Vehicle Company has been incorporated at Washington, D. C., to manufacture vehicles and improvements in power transmitters. The incorporators are August D. Meiselbach, E. T. McKaig, and John C. Ristenbatt, of Chicago, Ill.; John L. Dement, C. D. Wright, and M. S. Kronheim, of Washington. The capital stock is \$250,000. The Washington parties will form the board of directors for the first year. An office will be maintained in Washington and the factory will be in Chicago.

The Stegmaier Brewing Company, of Wilkesbarre, Pa., recently purchased a large electric truck, which has now arrived and is in daily service between that city and the neighboring town of Plymouth. It is probable that the company will soon order additional vehicles of the same type. The truck now in use weighs 9,100 pounds and closely resembles the horse-drawn trucks owned by the company, but the wheels are much smaller, which brings the floor nearer the ground, an advantage that

is much appreciated by the truckmen. The truck was built by the Vehicle Equipment Company.

The happiest woman in Cleveland last Friday was Mrs. E. Tom Fetch when she greeted her husband who arrived just after noon *en route* from San Francisco to New York on "Old Pacific." A number of other relatives and friends from Warren, the home of the transcontinental car, were on hand to greet the long-distance tourist, and the Diamond Rubber Company, of Akron, which made the tires with which Mr. Fetch has had such success, was also represented among those who welcomed the sun-burned travelers. Two new tubes and two new casings were all the tires Mr. Fetch had occasion to use in addition to the set with which he originally started.

Rumors Arouse Winton Company. Special Correspondence.

CLEVELAND, Aug. 17.—Since the completion of Dr. Jackson's transcontinental trip there appears to have been set in motion stories to the effect that Dr. Jackson used two automobiles instead of one on the long journey and that in some places he loaded the machine into a freight car for transportation across rough country. The rumors became so pointed that last week the Winton Motor Carriage Company posted an offer of a reward of \$10,000 to any one who will prove that Dr. Jackson used more than one car for his entire journey of 5,000 miles, or that he was forced to resort to a railroad train at any stage of his ride. Last Friday Charles Shanks wired Dr. Jackson that the company had decided to take this action and within a few hours Mr. Shanks received the following reply:

"Proceed as suggested. Will personally add ten thousand more."

Sunday Arrests in Chicago Suburb. Special Correspondence.

CHICAGO, Aug. 17.—The upholders of the majesty of the law in Evanston, Ill., arrested, by means of a ruse that was almost undignified, seventeen automobileists in that fashionable suburb of Chicago on Sunday, August 16, on the charge of fast driving. "Fast driving," in the Evanston sense, means exceeding a limit of eight miles an hour fixed by a local ordinance. The motorists arrested were all said to be going at a speed in excess of twelve miles.

A patrolman dressed in civilian clothes gave the signal, when an automobile passed, by lifting his handkerchief to his face in a perfectly guileless and natural manner, while two policemen, resplendent in brass buttons and suits of blue, stationed an eighth of a mile further down the road, timed the approaching cars, and stopped the operators of those going too fast. The seventeen "scorchers" were released on bond or on their own recognizance to appear in court later. The minimum fine for violation of the Evanston speed ordinance is \$25.

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